New Jersey Department of Health and Senior Services

Influenza Pandemic Plan

DRAFT

July 1, 2005

NJDHSS Contact Information

Communicable Disease Service

Monday-Friday, 8am-5pm
609-588-7500, 609-588-3121

Off-hours/weekends/holidays
609-392-2020

http://www.state.nj.us/health

Table of Contents

Executive Summary

Influenza viruses are unique in their ability to cause sudden, pervasive illness in all age groups on a global scale. Global influenza epidemics are referred to as "influenza pandemics." Three such pandemics occurred in the 20th century, causing millions of deaths. Experts consider them to be an inevitable fact of nature.

The New Jersey Department of Health and Senior Services (NJDHSS) has estimated that an influenza pandemic could result in as much as 1.5 million outpatient visits, 40,000 hospitalizations, and over 8,000 deaths in New Jersey.

In a pandemic, higher disease rates are likely to stress outpatient and inpatient care systems. This will be exacerbated by high rates of absenteeism among health care workers (HCWs) who are at increased risk of exposure and illness or who have to care for ill family members.

A pandemic will cause both widespread and sustained effects and is thus likely to stress the resources of every state. This broad resource strain will make it difficult to shift resources between states and reinforces the need for each state to develop a plan, requiring a substantial degree of self-reliance. Due to the broad impact of pandemic influenza, the role of intra- and interstate mutual aid agreements will not be central to the response.

Reluctance to travel to affected areas may impact the delivery of food supplies and other essential materials in some communities. In addition, the emotional effects of a pandemic are expected to be severe.

The time between pandemics provides an opportunity in which key components of public health infrastructure can be developed or strengthened.

This planning document has been designed to ensure that New Jersey is prepared to implement an effective response before an influenza pandemic arrives. The intent of the plan is to help minimize morbidity and mortality, and maintain the operations of essential community services in the event of a pandemic. The plan has been developed to complement the State Emergency Operations Plan. It includes the duties of NJDHSS and the actions that local health departments (LHDs) and LINCS agencies need to take to prepare for and respond to an influenza pandemic.

This plan was developed in close collaboration with partner organizations throughout the state and was reviewed by numerous individuals and organizations in the public and private sectors. It is a "Work In Progress" that will be updated when new information and guidelines from the WHO or CDC are available.

Health care facility pandemic preparedness and response plans should include the same components as the public sector. These include decision-making and coordination, surveillance, vaccine and antiviral use, and communications. In addition, factors affecting the ability to provide quality care – staffing, equipment and supplies – and strategies to prevent transmission of infection to patients and staff through infection control and other interventions, are important.

Glossary of Acronyms/Definitions

ACIP – Advisory Committee on Immunization Practices: an advisory committee of the CDC

BRFSS – Behavior Risk Factor Surveillance System: BRFSS, the largest continuous telephone survey in the world, monitors national and state trends in health-risk behaviors and is the primary US source of scientific data on adult risk behaviors.

CC – Crisis Counselor: mental health professionals and paraprofessionals trained in a model consistent with Federal Emergency Management Agency and Substance Abuse Mental Health guidelines.

CDC – Centers for Disease Control and Prevention (federal government)

CDRSS - Communicable Disease Reporting and Surveillance System (NJDHSS): a web-enabled, CDC-specification compliant application that is used to enter, update and track New Jersey's reportable communicable disease information

CDS - Communicable Disease Service (NJDHSS): the program within NJDHSS responsible for prevention and control of communicable diseases.

CHAIN - Community Health Alert and Information Network: consists of public health and community representatives statewide, including LHDs, health care organizations, law enforcement organizations, local government officials and other public/private organizations working at the community level to protect the public's health.

CLF – Congregate Living Facility – group housing including nursing homes, senior citizen residential facilities, group homes, special needs facilities, college dormitories, prisons, etc.

DLH – Division of Local Health Practice and Regional Systems Development: the division within NJDHSS which helps to build the capacity of local health departments

DMHS – New Jersey Division of Mental Health Services: within the Department of Human Services, the state's social services agency, sets mental health policy and provides services

ECC - Emergency Communications Center: NJDHSS CDS emergency call center where hotline calls are received.

EMS – Emergency Medical Services

EOC - Emergency Operations Center

Epidemiology- the study of the distribution and determinants of health-related states or vents in specified populations and the application of this study to the control of health problems. Each LINCS agency employs an epidemiologist and several work at NJDHSS.

FQHC – Federally Qualified Health Center: a facility located in a medically underserved area that has been approved by the federal government to provide low cost, preventive primary medical care to Medicare beneficiaries. FQHCs include community health centers, tribal health clinics, migrant health services, and health centers for the homeless.

HAN - Health Alert Network: a nationwide program to establish the communications, information, distance-learning, and organizational infrastructure

HCC – Health Command Center: houses the NJDHSS command staff which supports state EOC operations.

HCP – Health Care Provider: a physician, advanced practice nurse, physician's assistant or a person having control or supervision over a hospital or other health care institution, correctional facility, school, summer camp, child care center, preschool, or institution of higher education

HCW - Health Care Worker: includes licensed and non-licensed workers in hospitals, nursing facilities, senior citizen residential facilities, pharmacies, home care agencies, group homes, special needs facilities, prisons, etc.

HEPR - Division of Health Emergency Preparedness and Response (NJDHSS): develops plans and policies, coordinates exercises and trainings, supervises state EMS program, controls the Strategic National Stockpile and the Strategic State Stockpile

HERC – Health Educator/Risk Communicator, on staff in each LINCS Agency

Home Care – Services provided in a patient's residence by a Home Health Agency: preventive, rehabilitative and therapeutic services. All agencies provide nursing, homemaker-home health aide, and physical therapy services.

IAC – Influenza Advisory Committee: a committee established by NJDHSS to provide advice to NJDHSS regarding influenza

ILI - Influenza-Like Illness (fever $\geq$ 100°F AND cough and/or sore throat, in the absence of a known cause)

IZDP – Infectious and Zoonotic Disease Program (NJDHSS CDS): provides public health consultation and education on communicable diseases, performs disease outbreak investigations, and provides consultation on veterinary public health issues.

LHD - Local Health Department: responsible for the provision of local public health services

LINCS - Local Information Network and Communications System: a system of public health professionals and electronic public health information built on computer and Internet technologies. LINCS is a network of twenty two strategically positioned local health agencies located throughout the state, the New Jersey Department of Health and Senior Services, and all local health departments. LINCS is used to disseminate HAN messages.

MEDPREP - Medical Emergency and Disaster Prevention and Response Expert Panel: provides recommendations to the Commissioner of Health

MEDPREP Communicable Disease Sub-Committee - A group of experts which takes a pro-active approach to the surveillance, detection and control of emerging infections

NJDHS – New Jersey Department of Human Services: the state's social services agency

NJDHSS - New Jersey Department of Health and Senior Services

NJHA - New Jersey Hospital Association

NJIIS – New Jersey Immunization Information System: a web enabled interactive registry which is used by both the private and public sectors. It is internet accessible and password protected. During an influenza pandemic, it may be used to track administration of both doses of flu vaccine**.**

NJMRC – New Jersey Medical Reserve Corps: professional and lay volunteers who provide assistance during public health crises

Nursing Home – One type of long-term care facility. These facilities provide 'round the clock nursing care for patients who do not require the degree of care and treatment which a hospital provides.

OEM - Office of Emergency Management: office within the NJ State Police that plans, directs and coordinates emergency operations. Each county also has an OEM.

Pandemic Phases used in this plan:

Interpandemic Period (WHO/CDC Phases 1-2): No new influenza virus subtypes detected in humans.

Pandemic Alert Period (WHO/CDC Phases 3-4): No (or very localized) human-to-human transmission.

Heightened Pandemic Alert Period (WHO/CDC Phase 5): Larger clusters of human-to-human transmission.

Pandemic Period (WHO/CDC Phase 6): Increased and sustained transmission in the general population.

End of Wave(s): Return to Pandemic Alert Period
Successive Wave(s): Return to Heightened Pandemic Alert and Pandemic Periods.
Postpandemic Period

PEC – Pandemic Executive Committee: Chaired by the State Epidemiologist, this committee is responsible for developing/approving all major Departmental policy recommendations (including priority groups to receive vaccines and antivirals in the event of shortages; advisories, suspension of group gatherings); ensuring coordination among all affected units throughout the Department; maintaining and updating lists of key partners, resources and facilities during a pandemic; and, mobilization of additional resources (materials and staff) as needed.

PHC Partners/System - Public Health Care Partners/System: encompasses the continuum of all activities related to the promotion of health and the prevention of disease and untimely death. This includes activities that are traditionally performed by the public health and health care sectors. The partners are those organizations that provide these services, such as hospitals, public health agencies, schools, colleges, long term care facilities, home care agencies, ambulatory care facilities, EMS, private medical practices and pharmacies.

PHCW - Public Health Care Worker:

a. Clinicians - including private practice physicians and nurses (especially school nurses and visiting nurses)
b. Health Care Workers - including licensed and non-licensed workers in hospitals, long term care facilities, pharmacies, prisons
c. Laboratory Workers - in both public health and commercial labs
d. Public Health Workers - in LHDs, LINCS agencies, and NJDHSS
e. Emergency Response Workers (law enforcement, emergency medical technicians, paramedics, and fire personnel)
f. Mental Health Workers - through the agencies where they work or volunteer
g. Students - medical, nursing, and paramedic

PHEL - Public Health and Environmental Laboratories (NJDHSS)

POD – Point of Dispensing: term used for a mass prophylaxis clinic

PIO – Public Information Officer

RODS – Real-time Outbreak and Disease Surveillance: a national effort to monitor sales of over-the-counter (OTC) healthcare products and analyze them for aberrations suggestive of a disease outbreak

SARS - Severe Acute Respiratory Syndrome

Senior Citizen Facilities – includes residential facilities such as assisted living, senior housing, and independent living facilities as well as non-residential adult day health care facilities.

SNS – Strategic National Stockpile: medical supplies provided by the Federal government during a public health emergency if requested by the state

Special Needs Facilities – includes residential facilities such as those for the handicapped impaired and brain injured.

Surveillance - the ongoing systematic collection, analysis, and interpretation of outcome-specific data essential to the planning, implementation, and evaluation of public health practice, closely integrated with the timely dissemination of these data to those who need to know. Epidemiologic activities would include identification, evaluation, and monitoring of cases and contacts.

Sentinel Physician Surveillance - enhanced passive surveillance with physicians as the reporting entity

Surveillance, active - surveillance initiated by a health department

Surveillance, enhanced passive - surveillance initiated by the source of data, often a health care provider or clinical laboratory rather than a health department

Surveillance, sentinel - to identify the initial introduction of a disease as soon as possible to prevent an extensive and sustained outbreak.

T-TAG –Training and Technical Assistance Group: mental health professionals from DMHS who provide consultation and training as needed during an emergency response

URP - Universal Respiratory Precautions: practices that help decrease the transmission of respiratory pathogens. These include covering coughs and sneezes, washing hands frequently, and wearing gloves and surgical masks.

VOAD - Volunteer Organizations Active in Disaster: This organization coordinates the disaster response activities of the many volunteer agencies that provide these services.

VPDP – Vaccine Preventable Disease Program (NJDHSS CDS)

WHO - World Health Organization

i. AUTHORITIES AND REFERENCES

Primary Responsibilities of the Federal Government

The federal government is responsible for nationwide coordination of the pandemic influenza response. Specific areas of responsibility include the following:

- Surveillance in the US and globally (By Executive Order of the President announced on April 1, 2005, pandemic influenza is among the communicable diseases for which quarantine is authorized.)
- Epidemiological investigation in the US and globally
- Development and use of diagnostic laboratory tests and reagents
- Development of reference strains and reagents for vaccines
- Vaccine evaluation and licensure
- Determination of populations at highest risk and strategies for vaccination and antiviral use
- Assessment of measures to decrease transmission (such as travel restrictions, isolation, and quarantine)
- Deployment of federally purchased vaccine
- Deployment of antiviral agents in the Strategic National Stockpile
- Evaluation of the efficacy of response measures
- Evaluation of vaccine safety
- Deployment of the Commissioned Corps Readiness Force and Epidemic Intelligence Service officers
- Medical and public health communications

NJDHSS and NJ Department of Law and Public Safety have jointly reviewed the existing legal authority for entering upon those steps anticipated to be necessary to contain and control a pandemic situation. It is further recognized that any such response must be a balance of both respect for individual rights and the need to ensure the public's protection from a communicable illness associated with substantial morbidity and mortality. Two pre-eminent legal structures have been identified as fundamental to enabling a rapid and effective response to any such threat to the public's health.

- Powers presently possessed by the NJDHSS and local boards of health by statute (NJSA 26:4-2).

  Specifically, NJDHSS and local boards of health shall have the power to:
  a) define a communicable disease,
  b) declare an epidemic,
  c) require the reporting of communicable diseases,
  d) isolate and quarantine infected persons,

e) remove infected persons to a suitable place,
f) disinfect premises, and
g) remove and destroy property.

- The NJ Domestic Security Preparedness Act – P.L. 2001, Chapter 246, effective Oct. 4, 2001. Among other things, this act provides for NJDHSS laboratory services and a program of disease surveillance and epidemiological investigation.

Additionally, if current statutory provisions are insufficient in a particular emergency situation, the State has the authority to act on behalf of the public good.

ii. PRIMARY AGENCY:

New Jersey Department of Health and Senior Services (NJDHSS)

iii. SUPPORT AGENCIES:

NJ Association of Professionals in Infection Control
NJ Department of Agriculture
NJ Department of Human Services
NJ Department of Law & Public Safety
NJ Division of Youth & Family Services
NJ Hospital Association
NJ Office of Emergency Management
NJ Office of the State Medical Examiner
NJ Voluntary Organizations Active in Disasters

I. INTRODUCTION

A. Purpose

The purpose of this influenza pandemic plan is to provide a protocol for the NJDHSS for detection and response to an influenza pandemic; to provide guidance to local health departments (LHDs) and Local Information Network and Communications System (LINCS) agencies in the development of their influenza pandemic plans; and to provide guidance to other public health care (PHC) partners regarding their roles related to an influenza pandemic. It is understood that the impact of an influenza pandemic will reach far beyond the confines of the health sector.

B. Scope

1. Evaluate the threat of influenza.

2. Support NJ Emergency Support Function #8 - "Health & Emergency Medical Annex" of the State of NJ Emergency Operations Plan.

II. POLICIES

A. This plan is to be implemented at the appropriate activity level at the time of its release.

B. The plan fully supports NJ Emergency Support Function #8 - "Health & Emergency Medical Annex" of the State of NJ Emergency Operations Plan.

III. SITUATION

A. Disaster Condition

1. Background

Influenza is a respiratory illness that makes hundreds of thousands of people sick each year. It lasts about a week and is characterized by abrupt onset of fever, muscle aches, sore throat, and nonproductive cough. Influenza infection not only causes primary illness but also can lead to severe secondary medical complications including pneumonia and worsening of underlying medical conditions, such as congestive heart failure, asthma or diabetes, or other complications such as ear infections in children.

The typical incubation period for influenza is two days, with a range of one to four days. Patients are most infectious during the 24 hours before the onset of symptoms and during the most symptomatic period, which generally lasts 3-5 days after onset of illness. Influenza is highly contagious and persons who are sub-clinically infected (approximately 50 percent of infected persons) can transmit the virus.

Influenza viruses are known to survive on non-porous surfaces, such as steel and plastic, for 24 – 48 hours and on cloth, paper, and tissues for 8 – 12 hours. Viable virus can be transferred from non-porous surfaces to hands for 24 hours and from tissues to hands for 15 minutes.

For interpandemic influenza, person-to-person transmission occurs efficiently with each case infecting an average of three to four susceptible persons; secondary household illness rates greater than 20 percent have been reported.

Influenza viruses are unique in their ability to cause sudden, pervasive illness in all age groups on a global scale. Global influenza epidemics, which involve strains of Influenza A virus to which large proportions of the population are susceptible, are referred to as "influenza pandemics." Pandemics occur because of the ability of the influenza virus to change into new types or strains as a result of antigenic "shift." Three such pandemics have occurred in this century, one of which-the infamous "Spanish flu" of 1918-1919 was responsible for more than 20 million deaths worldwide, primarily young adults. That virus appears to have swept the world three times in two years, gaining renewed virulence with each successive wave. There is no way to predict the target population of the next pandemic. The three characteristics of a pandemic are:

a. the development of a novel strain of virus (a strain to which a large proportion of the society is susceptible to because of lack of prior exposure);

b. transmissibility of the strain from person to person; and

c. the virulence of the viral infection (the capacity to cause severe morbidity and mortality).

Subsequently, global flu pandemics on a lesser scale were experienced in 1947, 1957, 1968, and 1977. Humans have been infected in recent avian influenza outbreaks in Asia (1997, 1999, 2003 – present) and in Europe (2003). Finally, Severe Acute Respiratory Syndrome coronavirus (SARS Co-V), first noted in Hong Kong and Southern China in 2002-2003, erupted on the world's public health radar with a suddenness and virulence initially feared to be a new influenza pandemic. Such occurrences are a reminder that a novel strain could occur at any time.

Influenza pandemics are inevitable but unpredictable and arrive with very little warning. Should a true influenza pandemic virus again appear that behaves as the 1918 strain, even taking into account the advances in medicine since then, unparalleled tolls of illness and death would be expected. Air travel could hasten the spread of a new virus, and decrease the time available for implementing interventions. Outbreaks are expected to occur simultaneously throughout much of the US, preventing shifts in human and material resources that usually occur in response to other disasters. The effect of influenza on individual communities will be relatively prolonged (weeks to months) in comparison to other types of disasters. Health care systems could be rapidly overburdened, economies strained, and social order disrupted.

Depending on where the initial outbreak begins, there may be a maximum of three months lead time until it spreads to the US. Two or more "waves" are anticipated, occurring within three to nine months of the initial outbreak in a

given area. These waves may cause more serious illnesses and deaths than the first. Historically speaking, it is expected that in any locality the length of each wave is approximately four to eight weeks. Vaccine will not likely be available in time for the first wave of illness, but may be available in time to mitigate the impact of the second wave, provided the virus strain has not "shifted" between waves.

Although it is not considered feasible to halt the spread of a pandemic virus, it should be possible to minimize the consequences by having prepared for the challenge in advance. The national response to a pandemic will largely reflect the ability of states and local areas to respond. Because of the potential impact of a pandemic and the need to coordinate a number of partners to effectively respond, planning for such an event needs to occur well in advance.

2. Impact on New Jersey

New Jersey's geographic and demographic characteristics make it particularly vulnerable to importation and spread of infectious diseases, including influenza.

a. New Jersey is the most densely populated state with a population of over 8.5 million people, including large populations of immigrants. In fact, New Jersey ranks 5th in the nation for immigrants arriving from other countries. Nearly half of New Jersey's population lives in the urban/suburban areas of the northeastern third of the state near New York City.

b. New Jersey has more roadways per square mile of land than any other state and provides an important transportation route in the Washington, D.C.- Philadelphia - New York corridor with over 210 million vehicles traveling through this route per year. Air traffic includes Newark International Airport, which provides transportation to over 31 million passengers per year, nationally and internationally, and is the busiest airport in the tri-state area. New Jersey is also a major ocean transport center with several major shipping yards.

c. There are over one half million commuters using the bridges, tunnels and train network systems connecting New York and New Jersey every day. Thousands of tourists visit Atlantic City's casinos and other New Jersey attractions each day.

In the US**,** during an average influenza season, more than 36,000 deaths and 114,000 hospitalizations occur. During a pandemic, it is estimated that up to 200 million people (2/3 of the total population) will be infected, between 30 and 89 million will be clinically ill, between 18 and 42 million will require

out-patient care, between 314, 000 and 733,000 will be hospitalized, and between 89,000 and 207,000 will die. This represents a case-fatality rate of approximately 1 percent.

CDC's FluSurge software is a spreadsheet-based model which provides hospital administrators and public health officials with estimates of the surge in demand for hospital-based services during an influenza pandemic. Community-level estimates suggest that demand for inpatient and intensive care unit beds and for assisted ventilation may increase by more than 25% during a pandemic. FluSurge estimates the number of hospitalizations and deaths due to an influenza pandemic (whose length and virulence are determined by the user) and compares the number of persons hospitalized, the number of persons requiring Intensive Care Unit (ICU) care, and the number of persons requiring ventilator support during a pandemic with existing hospital capacity.

FluSurge does not provide estimates of personnel needs. In fact, staffed hospital beds may be a more limiting factor than bed availability alone. In addition, it is anticipated that more staff will need to be trained to manage patients on ventilators. FluSurge also does not consider the density of the population. Therefore, the NJ estimates below are, most likely, underestimates of what will occur in NJ over an 8 week wave of pandemic influenza with an attack rate of 35%.

40,904 hospital admissions
9,553 patients in ICU
4,775 flu patients on ventilators
8,141 deaths (5,700 of these will occur in hospitals)

A FluSurge spreadsheet for NJ is in the Appendix. In determining ventilator capacity, NJDHSS used the industry standard of one ventilator per ICU bed. Although additional ventilators are often available in hospitals (industry standard of 1:10 non-ICU beds, and one per operating room), these were not counted. Maps showing the impact on NJ's ICU capacity, by county and region, are found in the Appendix. NJDHSS will provide LINCS agencies with FluSurge spreadsheets customized for their respective counties. In addition, NJDHSS will provide technical assistance to LINCS agencies regarding the utilization of FluSurge, including use of updated versions of the software as they are created.
In addition, it is expected that:

a. At best, there will be no more than nine months between the time of the first pandemic alert and outbreak of the full pandemic.

b. Health care workers (HCWs) and other first responders will be at higher risk of exposure and illness than the general population, further straining the health care system.

c. Effective prevention and therapeutic measures, including vaccine and antiviral agents, will be in short supply, contributing to public concern.

d. Widespread illness in the community will increase the likelihood of sudden and potentially significant shortages of personnel in other sectors who provide critical community services (police, fire fighters, school staff, utility and transportation workers).

B. Planning Assumptions

Because of the activities funded through the Centers for Disease Control and Prevention's (CDC) Bioterrorism Preparedness and Response Cooperative Agreements and through the Health Resources and Services Administration's (HRSA) National Bioterrorism Hospital Preparedness Program, new infrastructure and key linkages between agencies have been created. Many aspects of planning for pandemic influenza use much the same infrastructure as that needed for response to bioterrorism events. The planning assumptions are:

1. Public, private and non-profit sector partners have been brought into the planning process for bioterrorism preparedness.

2. Pandemic influenza planning will be integrated into other preparedness activities.

3. Influenza-Like Illness (ILI) surveillance is already in place.

4. Mass prophylaxis clinic protocols are developed.

5. Systems for communication among NJDHSS, public health departments, and hospitals and other PHC partners are in place.

III. CONCEPT OF OPERATION

The original New Jersey pandemic influenza plan was released in September 2002, following an extensive collaborative process. This update was drafted by NJDHSS Communicable Disease Service staff with input from several departments and agencies and reviewed by the NJDHSS Influenza Advisory Committee (IAC), the Medical Emergency and Disaster Prevention and Response Expert Panel (MEDPREP), the MEDPREP Communicable Disease Sub-Committee and others. The agencies represented in these groups are listed in the Appendix.

The purpose of this influenza pandemic plan is to provide a protocol for NJDHSS on detection and response to an influenza pandemic; to provide guidance to LHDs and LINCS agencies in the development of their influenza pandemic plans; and to provide guidance to other PHC partners regarding their roles related to pandemic influenza. The response components outlined in this plan will help to limit the burden of the disease (morbidity and mortality), minimize social disruption, and reduce economic loss.

This plan takes into consideration the 2004 "State and Local Health Departments Guidance" provided by the CDC as well as Emergency Support Functions #8 ("Health & Emergency Medical Services Annex") and #6 ("Mass Care Annex") from the State of New Jersey Emergency Operations Plan.

It is important to note that the agencies responsible for implementing the above emergency support functions will be as affected by absenteeism due to illness as the communities requesting assistance. Each state agency and local community is encouraged to develop plans that will ensure as much self-sufficiency as possible.

Each of the following six sections describes activities by pandemic phase. The World Health Organization's (WHO) influenza pandemic phases are outlined in the Appendix. For purposes of this plan, they have been modified slightly, as described in the Glossary. Determination of which phase is "active" in the US will be the responsibility of the WHO and the CDC.

A. Command, Control and Management Policies

1. Background

   The US Department of Health & Human Services (HHS) Secretary's Command Center will serve as the national incident command center for all health and medical preparedness, response, and recovery activities.

   Existing command and control system structures will be applied to pandemic influenza at both the state and local levels. In the event that the people holding specific offices are unable to perform their duties due to illness or death, their superiors will be responsible for assuring that others fulfill their responsibilities.

   a. The Governor of New Jersey designates the Commissioner, Department of Health and Senior Services, as the leader and decision maker of the state's public health and health care-related response to pandemic influenza.

   b. The Commissioner designates the State Epidemiologist as the leader in preparing and maintaining the state's influenza pandemic plan as well as interpandemic lists of key partners.

c. The Commissioner designates the Director, Office of Communications, to clear all communications about influenza with the press and via the Department's web site, in keeping with the existing routine chain of command policy on communications.

d. The Commissioner designates the Deputy Commissioner, Public Health Protection & Emergency Preparedness, to coordinate the mobilization of additional resources.

2. Activities by Pandemic Phase

Interpandemic Period

NJDHSS will:

a. Update the Influenza Pandemic Plan on a bi-annual basis.

b. Disseminate the revised plan to LHDs, LINCS agencies, hospitals, health care providers, and other agencies and organizations that will be involved in the response to an influenza pandemic.

c. Select, notify and provide copies of the plan to individuals/agencies to be participants in the:

- Pandemic Executive Committee (PEC)
- IAC and
- MEDPREP.

d. Convene the PEC to review the plan; identify crucial gaps in infrastructure and resources, statutes and/or regulations, which, if not corrected in advance, may interfere with an effective response; and take action to resolve these gaps. The plan should be exercised bi-annually and modified as needed.

- The PEC is responsible for developing/approving all major Departmental policy recommendations (including priority groups to receive vaccines and antivirals in the event of shortages; travel advisories, suspension of group gatherings); ensuring coordination among all affected units throughout the Department; maintaining and updating lists of key partners, resources and facilities during a pandemic; and, mobilization of additional resources (materials and staff) as needed.

- The PEC, chaired by the State Epidemiologist, includes the Service and Medical Directors of the Communicable Disease Service (CDS), the Chief and Medical Consultant of the Vaccine Preventable Diseases Program (VPDP), and representatives from the Infectious and Zoonotic Disease Program (IZDP), the Office of Emergency Medical Services, the Division of Local Public Health Practice and Regional Systems Development (DLH), the Division of Health Emergency Preparedness and Response (HEPR), the Public Health and Environmental Laboratories (PHEL), the Healthcare Quality & Oversight Branch (HCQO), the Senior Services Branch, the Public Health Services Branch, the Department's Emergency Response Coordinator, the Office of Communications, and the NJ Department of Human Services, Division of Mental Health Services (DMHS), Disaster Mental Health Services.

- Other organizations on the PEC include representatives from LINCS agencies, hospitals, the State Police, and the NJHA. An ethicist will participate in all major committee decisions.

- Representatives from other departmental units and other departments will be called upon as needed (e.g., Hospital Licensing, Public Employee Occupational Safety and Health, Division of Long Term Care Systems, Department of Education, Department of Community Affairs, Department of Transportation).

e. Direct LINCS agencies and LHDs to develop influenza pandemic plans using this document as a guide as well as the CDC's *"Pandemic Influenza Response and Preparedness Plan – Annex 1: Planning Guidance for State and Local Health Departments"* located at http://www.dhhs.gov/nvpo/pandemicplan/. These plans should be exercised bi-annually and modified as needed.

f. Direct hospitals, nursing homes, senior citizen facilities, special needs facilities, home health care agencies, health care systems, and medical provider organizations should plan for pandemic influenza using this document as a guide as well as the CDC's *"Pandemic Influenza Response and Preparedness Plan – Annex 2: Planning Guidance for the Health Care System"* located at http://www.dhhs.gov/nvpo/pandemicplan/. These plans should be exercised bi-annually and modified as needed.

Pandemic Alert Period

NJDHSS will:

a. Notify LHDs, LINCS agencies, hospitals, health care providers, NJ Department of Agriculture, and other PHC partners.

b. Convene the PEC to review:

- the plan;
- the priority groups for vaccination and antivirals;
- prioritization for distribution of medical supplies and materials;
- emergency contact lists of PHC partners, resources and facilities;
- coordination mechanisms; and
- communication systems.

c. Convene the IAC of external stakeholders that is appointed by the Commissioner to review major elements of the plan and evaluate the level of preparedness among stakeholders. Modify the plan as needed.

- This IAC is chaired by the State Epidemiologist and advises the PEC. The IAC includes representatives from key health-related organizations including the NJ Hospital Association (NJHA), the Association of Practitioners of Infection Control (northern and southern chapters), the Medical Society of New Jersey, New Jersey Chapter of the Infectious Disease Society, the Association of Health Plans, the NJ Pharmacists Association, the NJ Health Officers Association, the NJ Association of Public Health Nurse Administrators, and the State Medical Examiner.

d. Appoint an Incident Commander to ensure coordination of activities and information, and to staff all Departmental organizational responses throughout the phases of a potential pandemic.

e. Through NJDHSS regional planners and hospital liaisons, confirm the availability of resources (personnel and facilities) for acute care, mass care, home care, and mass prophylaxis clinics.

f. Request that all NJDHSS divisions make plans to work with one third fewer staff during a pandemic. Their staff will be ill, caring for family members, and dying. The division heads will determine what priority activities within their divisions must continue and what staff can be reassigned to support the pandemic response. In preparation for public health staff surge capacity, all staff (including individuals from divisions outside of CDS) will be trained in advance. Furthermore, "just in time" training (for last minute staffing needs) will be developed.

g. Prepare for documentation of operational activities and expenses related to a pandemic response.

Heightened Pandemic Alert Period

a. NJDHSS will notify LHDs, LINCS agencies, hospitals, and other PHC partners.

b. The State Epidemiologist will convene and chair the PEC, which is responsible for conducting the major activities of the Department in surveillance (including laboratory activities), vaccine distribution, and development of scientifically sound informational materials for health professionals and the public.

   The IAC will convene promptly to ensure stakeholder readiness and establish the logistics of interfacing with the PEC during a potential pandemic.

   The HCC is responsible for day-to-day coordination of operations during a pandemic. It is composed of select senior NJDHSS staff.

c. Certain operational priorities of the plan will be activated:

   - Enhanced surveillance begins, including laboratory testing.
   - The communications plan is implemented, including the mental health component.
   - Preparations are made for distribution of available antivirals and/or vaccine.
   - Preparations are made for distribution of medical supplies and materials.
   - Public officials are notified of the need for additional resources, monetary and other.
   - Expenses of pandemic response are documented.

Pandemic Period

a. Notification via LINCS and blast fax: LHDs, LINCS agencies, hospitals, health care providers, NJ Department of Agriculture, other PHC partners, as well as non-health stakeholders.

b. Full activation of the plan, including coordination with neighboring jurisdictions and national counterparts.

c. If the State Epidemiologist determines that the pandemic response requires more assistance than the assigned staff (due to absenteeism, overwhelming work load, etc) other divisions within the DHSS will be contacted for assistance.

d. The State Epidemiologist will notify the State Medical Examiner to alert county medical examiners and funeral directors to prepare for an increase in the number of dead they will have to handle.

e. The PEC may advise the Commissioner of NJDHSS about the need to implement emergency powers to facilitate influenza related directives and penalties for non-compliance with any NJDHSS influenza related directives.

f. The Commissioner shall advise and request activation of the State Emergency Operations Center (EOC) to the Deputy State Director of the Office of Emergency Management (OEM).

- The Deputy State OEM Director determines the level of State EOC activation.

- The Deputy State OEM Director notifies the Governor's representative and the Attorney General's on-call Deputy of the emergency event.

- The State OEM notifies the appropriate Emergency Coordinators.

- The Emergency Coordinators then notify the appropriate personnel within their agencies.

- The NJDHSS reports to the EOC through the established chain of command: PEC to State Epidemiologist to Commissioner or his/her designee. The Commissioner or his/her designee serves as a single point of contact for the NJDHSS.

g. Documentation of expenses related to pandemic response.

End of Wave(s)

a. As soon as the CDC declares a wave over, agencies will conduct reviews and assessments of their pandemic response and make adjustments to their plans, as appropriate. The PEC will lead this effort with recommendations from the IAC.

b. Appropriate aspects of the Command and Control structure for *Pandemic Alert Period* will be implemented.

Successive Wave(s)

a. The Command and Control structure for *Heightened Pandemic Alert* and *Pandemic Periods* will be implemented, with modifications based upon experience from previous wave(s).

Postpandemic Period

a. Command and Control activities will return to the *Interpandemic Period.*

b. The PEC, with advice from the IAC, will assess the Command and Control experience and recommend modifications to the Influenza Pandemic Plan.

c. A joint report, prepared by the PEC with input from MEDPREP, will be submitted to the Commissioner of NJDHSS and the Governor.

B. Surveillance

1. Background

Key issues to be addressed by surveillance in preparation for a potential pandemic fall into two main categories: detection of the novel strain and disease monitoring.

Influenza surveillance is designed to determine when influenza viruses are circulating, identify circulating strains, detect changes in the viruses, monitor influenza-related illness, and measure the impact of influenza on deaths. Both disease surveillance and virologic surveillance are critical for pandemic preparedness.

Details on international and US surveillance can be found in the CDC's "Pandemic Influenza Response and Preparedness Plan – Annex 4: Surveillance" located at http://www.dhhs.gov/nvpo/pandemicplan/.

2. Activities by Pandemic Phase

Interpandemic Period

NJDHSS participates in national influenza surveillance activities and has several statewide enhanced passive surveillance systems, including syndromic surveillance for human West Nile virus illness and ILI, and surveillance for

reportable communicable diseases. Several of these surveillance activities are described below.

a. National Influenza Surveillance Activities

The Influenza Branch, CDC, conducts year-round surveillance for influenza in the United States with enhanced surveillance from October through mid-May. The four components of the national influenza surveillance system are:

- World Health Organization Collaborating Laboratory System

  Approximately 75 WHO collaborating virology laboratories and approximately 50 laboratories from the National Respiratory and Enteric Virus Surveillance System located throughout the United States report the total number of respiratory specimens tested and the number positive for influenza by type and subtype each week. A subset of the influenza viruses isolated is sent to CDC for antigenic characterization.

- 122 Cities Mortality Reporting System

  Each week, the vital statistics offices of 122 cities report the total number of death certificates filed and the number of those for which pneumonia was identified as the underlying cause of death or for which influenza was mentioned as contributing to death. New Jersey cities participating in this system are: Camden, Elizabeth, Jersey City, Newark, Paterson, and Trenton.

- State and Territorial Epidemiologists Reports

  State health departments report the estimated level of influenza activity in their state each week to the CDC. As of September 2003, the CDC, in collaboration with state and local partners, has re-defined influenza activity levels as "no activity," "sporadic," "local," "regional," and "widespread," as specified by the ILI activity/outbreak and laboratory data criteria.

- U.S. Influenza Sentinel Physicians Surveillance Network

  Approximately 260 physicians around the country report each week the total number of patients seen and the number of those patients with ILI by age group. Approximately 25-50 New Jersey physicians participate in this system each year.

b. NJDHSS Year-Round ILI Surveillance Involving Sentinel Physicians, Nursing Homes, Hospital Emergency Departments and Schools

- The CDC has set a goal of one sentinel provider per 250,000 population. NJ has met and exceeded this goal during the past two influenza seasons, with proportionate geographic representation. The NJDHSS annually recruits primary care providers (providers of out-patient services) to maintain this network and provides on-going oversight and support so that there is consistency and completeness of reporting. Additionally, these physicians are requested to collect specimens from some of their patients for laboratory analysis. In the event of a novel or pandemic virus, NJ's sentinel physicians will be a valuable source for community level information on the epidemiology of the disease and required specimens.

- With the assistance and cooperation of local health officers and the coordinating efforts of LINCS agencies, NJDHSS has recruited selected schools and nursing homes statewide which report weekly absenteeism rates and flu-like illness rates, respectively. In addition, NJDHSS has requested all New Jersey hospital emergency departments to report the flu-like activity that they are seeing on a weekly basis.

- All reporting schools, sentinel physicians, nursing homes, and hospital emergency departments participate in this ILI surveillance voluntarily.

- School, sentinel physician, nursing home, and hospital information is reported and transmitted to the NJDHSS by the Thursday of each week. The information is tabulated and graphic and narrative reports are generated and posted on the NJDHSS website by Friday of that week.

- The number of schools and nursing homes selected were based upon population (1 per 100,000 population), with a minimum of four schools and four nursing homes per county. Many counties elected to include more than the requested number. The selection of a school or nursing home does not indicate that influenza or respiratory illness is more likely to occur there compared to other schools or nursing homes in the area.

- Schools are being asked to provide the rate of absenteeism, as well as the predominant reason for absenteeism (respiratory illness, gastrointestinal illness, etc.) occurring the Tuesday of every week.

- Nursing homes are being asked to provide the number of residents ill with respiratory or ILI on Tuesday of every week.

- Hospital emergency departments and sentinel physicians are being asked to provide the number of emergency department visits during a 24 hour period on or about Tuesday of each week and the number of illnesses seen that were due to respiratory ILI (excluding asthma or other chronic lung conditions).

c. Laboratory-Confirmed Reporting (Virologic Surveillance)

Diagnostic tests available for influenza include viral culture, serology, rapid antigen testing, polymerase chain reaction (PCR) and immunofluorescence. Sensitivity and specificity of any test of influenza might vary by the laboratory that performs the test, the type of test used, and the type of specimen tested. The most frequently used influenza tests (rapid antigen tests) in physicians' offices are approximately 70% sensitive and 90% specific.

Sensitivity describes how well a test diagnoses that a disease IS present when a person IS ill. It rules IN a disease when an individual is truly ill with that disease.

Specificity describes how well a test diagnoses that a disease is NOT present when a person is NOT ill. It rules OUT a disease when an individual is truly not ill.

So in this situation, 30% of the people with the flu will test negative and think that they do not have the flu. They need to be told that they could still have it even though they test negative, and they should take the proper precautions to control its spread.

Among respiratory specimens for viral isolation or rapid detection, nasopharyngeal specimens are typically more effective than throat swab specimens. As with any diagnostic test, results should be evaluated in the context of other clinical information available to health-care providers.

Commercial rapid diagnostic tests are available that can be used by laboratories in outpatient settings to detect influenza viruses within 30 minutes. These rapid tests differ in the types of influenza viruses they can detect and whether they can distinguish between influenza types. Different tests can detect:

- only influenza A viruses;

- both influenza A and B viruses, but not distinguish between the two types; or

- both influenza A and B and distinguish between the two.

The types of specimens acceptable for use (i.e., throat swab, nasal wash, or nasal swab) also vary by test. The specificity and, in particular, the sensitivity of rapid tests, are lower than those for viral culture and vary by test. Because of the lower sensitivity of the rapid tests, physicians should consider confirming negative tests with viral culture or other means.

Further, when interpreting results of a rapid influenza test, physicians should consider the positive and negative predictive values of the test in the context of the level of influenza activity in their community. Package inserts and the laboratory performing the test should be consulted for more details regarding use of rapid diagnostic tests. Additional information concerning diagnostic testing is located at http://www.cdc.gov/flu/professionals/labdiagnosis.htm.

- There are five laboratories in New Jersey that do viral isolation. These are PHEL at the DHSS, Hackensack University Medical Center, UMDNJ-Robert Wood Johnson University Hospital, JFK Hospital in Edison, and Meridian Health System. Each of these laboratories reports its findings to the IZDP. Although these laboratories are geographically well distributed, the territory covered by this surveillance is quite limited. Neither Hackensack nor UMDNJ hospitals performs any community-based surveillance. Cultures performed are those ordered by physicians on hospitalized patients.

- The PHEL attempts viral isolation on specific host cell lines for all clinical samples submitted for influenza investigation and/or collected by the IZDP in response to reported outbreaks of ILI. In that case, the PHEL receives specimens when the IZDP is notified of an influenza-like outbreak, and makes arrangements for specimens to be sent to the laboratory. Resources need to be identified promptly to obtain more appropriate surveillance cultures and quickly transport them to a laboratory.

- Only Hackensack University Medical Center and the PHEL currently have the ability to do strain typing which is essential to determine if a novel virus is circulating. Viral isolation is performed at Hackensack only when requested by the patient's physician.

- The CDC is consulted regarding questionable specimens. Result summaries are provided to NJDHSS CDS staff and the CDC.

- Commercial laboratories, such as Quest and LabCorp, do very little influenza testing and that which is done is primarily the rapid test and not viral culture.

d. Respiratory Syncytial Virus (RSV) Surveillance

A new RSV laboratory surveillance activity was piloted during the 2003-2004 influenza season. It was very successful in capturing the NJ statewide data. One acute care hospital in each LINCS jurisdiction reported weekly on both the number of RSV tests performed and the number that were positive. Weekly statewide reports were prepared and included in the ILI weekly report. This surveillance will be expanded to include adult acute febrile severe respiratory patients.

e. Weekly ILI Report

During the influenza season, NJDHSS CDS staff prepares a weekly, statewide, comprehensive report of ILI from the above sources (b. – d.). These reports are posted on the NJDHSS website, distributed electronically via LINCS to all public health and health care partners, and provided to the CDC.

f. NJDHSS Communicable Disease Reporting and Surveillance System (CDRSS)

CDRSS is a web-enabled, CDC-specification compliant application that is used to enter, update and track New Jersey's reportable communicable disease information. It has been designed to have multiple levels of security and messaging systems to alert appropriate health officials in case of emergency. Along with the ability to enter patient cases in a real-time environment, CDRSS users (e.g., LHDs, hospitals, health care providers, laboratories, health-related institutions) can also browse and search for cases by several parameters (e.g., name, disease, age, address, illness onset date), and receive data summary reports, including summary information on statewide disease trends. CDRSS has been introduced in all 21 counties, including over 400 users from LHDs. It has a dedicated influenza and ILI surveillance module.

g. NJDHSS Pharmacy Data Surveillance

The NJDHSS utilizes data from the Real-time Outbreak and Disease Surveillance (RODS) project, a national effort to monitor sales of over-the-counter (OTC) healthcare products and analyze them for aberrations suggestive of a disease outbreak. When people get sick, they often purchase OTC products prior to visiting a health care provider. In some cases, it is possible to identify an outbreak up to two weeks earlier with OTC sales than by monitoring clinical data. Based at the University of Pittsburgh, this collaboration involves the food and drug retail industry, state and local health departments, and the CDC.

Currently, NJDHSS CDS staff receives NJ specific RODS data pertaining to OTC pharmacy sales of cold, cough, anti-diarrheal and antipyretic medications. These data are monitored daily for surges in OTC sales that might suggest increased illness activity; and sales data for the current five-day reporting period are compared to baseline sales from previous reporting periods. NJDHSS and LHD staff then investigate to determine possible causes of any surges. Approximately 50% of in-state pharmacy sales are captured in these data that are reported daily.

h. Emergency Department Volume Data

NJDHSS receives daily submissions from acute care general hospitals regarding emergency department visits/admissions. If the recent volume is higher than expected, telephone follow-up is made with the LINCS Epidemiologist and the hospital's Infection Control Professional to determine the reasons for the aberration. This surveillance system is useful for the detection of aberrations in emergency department volume that might indicate unusual disease activity.

i. Deaths/Critical Cases

NJDHSS largely relies upon passive reporting of unusual influenza cases or deaths. Additionally, active outreach, when possible, is conducted by NJDHSS staff with targeted infectious disease specialists during times of heightened activity. Presently, deaths are not electronically reported to NJDHSS, resulting in a considerable delay that precludes usefulness relative to current outbreaks. However, LHDs manually receive such data from municipal registrars in a more relevant time-frame, and it may be possible for NJDHSS to capture this data statewide via enhanced communications with LHDs.

NJDHSS has developed a dedicated e-mail address for physicians and hospitals to report specific pediatric influenza related critical cases/deaths with epidemiological data in order to handle such reports during an acute, expansive outbreak. Additionally, hospitals and Infection Control Professionals are encouraged to relate unusual cases. Review and analysis of such submitted data will be conducted on a regular basis. The NJ State Epidemiologist, through the HCC, will be in close communication with leadership of the NJHA for continuing assessment of the impact on hospital resources.

j. Surveillance of Childhood Deaths Due to Influenza

During the 2003-2004 flu season, the CDC requested that states report childhood deaths due to influenza. This request was communicated to providers through the LINCS system. Passive surveillance is used to

monitor these deaths. This surveillance remained during the 2004-2005 flu season and is expected to continue. Repeated requests via LINCS, mailings to physicians, and other mechanisms will be implemented.

k. NJ Business Force Absenteeism Reports

Project "Blue Canary" is being developed for large businesses to report daily their level of absenteeism.

l. Assessment

The above surveillance activities (b. – k.) enable NJDHSS to assess the following questions:

- Is disease activity rising, falling or stable?
- How many persons are infected?
- What is the geographic and demographic distribution?
- What are the clinical attributes of atypical cases?
- What are the epidemiological risk factors?
- What subtypes of influenza virus are predominant?
- What is the impact on mortality?

m. Febrile Respiratory Illness Surveillance

NJDHSS conducts surveillance for RSV illness. Other surveillance for severe febrile respiratory illness in health care settings (inpatient and outpatient) is being developed.

n. Influenza Surveillance in the Animal Population

In addition to human surveillance activities, the NJDHSS maintains on-going communication with the NJ Department of Agriculture regarding influenza surveillance in the animal population (avian and swine).

Pandemic Alert Period

NJDHSS will:

a. Ensure that all interpandemic influenza surveillance activities are underway and that data from participating laboratories and sentinel providers is reported to the CDC each week.

b. Increase case detection among persons who recently traveled to the outbreak area and present with clinical illness possibly caused by influenza including pneumonia, acute respiratory syndrome, or other severe respiratory illness.

c. Subtype all influenza A viruses identified in clinical specimens that are sent to the PHEL and refer any influenza A viruses that cannot be subtyped to CDC immediately. CDC will provide instructions on the safe handling of a potential novel influenza virus. If it is determined that biosafety level 3+ facilities are required, the PHEL will use PCR methods recommended by the CDC for initial testing, with all influenza A positive samples being sent to the CDC for further testing.

d. Obtain reagents from CDC (when available) to detect and identify the novel strain.

e. Monitor and institute CDC recommendations for any additional surveillance activities that should be undertaken.

f. Review plans for further enhancing influenza surveillance if efficient person-to-person transmission of the novel virus is confirmed.

Heightened Pandemic Alert Period

a. Ensure that all appropriate influenza surveillance activities are underway.

b. Health care providers will be urged to increase submission of specimens, especially from patients presenting with unexplained pneumonia, or acute severe febrile respiratory illness AND travel to regions of epidemiological interest. Specimen kits and instructions will be given to providers and LHDs and a system will be established for delivery of specimens to one of the three labs capable of doing viral isolation and/or strain identification.

c. Hospitals and emergency departments will be requested to increase laboratory diagnosis of influenza, including through use of rapid antigen detection tests, for persons with compatible clinical syndromes, particularly among those who may have had recent exposure at the site of an outbreak.

d. The enhanced active surveillance system and reporting from the three laboratories will be fully operational and prepared to receive many specimens. CDC will provide guidelines to assist with triage of specimens for testing and for choosing which isolates to send to CDC.

e. The RODS project may be expanded nationally, asking pharmacists to report if they are filling unusually large numbers of prescriptions for antiviral agents.

f. Re-assignment of PHEL and other laboratory staff may be necessary in order to process an increased volume of specimens. PHEL staff has been cross-trained to allow for this.

g. PHEL will implement their guidelines to prioritize laboratory services during times of high demand.

h. Since death certificates usually do not report "influenza" as the primary cause of death, and there will be a need for mortality data, physicians will be asked to list influenza on certificates of death as part of the chain of events that directly caused death.

Pandemic Period

a. All above activities will continue.

b. Non-essential lab services will be reduced.

c. Regular analysis of surveillance data will be performed by the IZDP to provide information on the scope of the emerging pandemic and to identify high-risk groups for targeting of education, vaccine delivery, and mobilization of health care and support personnel.

i. Hospitals will be asked to increase their level of vigilance regarding the monitoring and reporting of critical cases/deaths due to influenza.

j. Community impact will be assessed by reports of absenteeism in key industries or sectors.

k. To track mortality data, physicians will be reminded to list influenza on certificates of death as part of the chain of events that directly caused the death.

End of Wave(s)

a. Agencies will review and assess their pandemic response and make adjustments to their plans, as appropriate. The IAC will lead this effort in cooperation with the PEC.

b. Appropriate aspects of surveillance systems for the *Pandemic Alert Period* will be continued, with modifications based upon experience from previous wave(s).

c. Surveillance may be enhanced for the early detection of the *Successive Waves*. This enhanced surveillance will involve increasing the number of health care providers who serve as sentinels and a corresponding increase in the number of specimens submitted for laboratory analysis.

Successive Wave(s)

a. The surveillance systems for the *Heightened Pandemic Alert Period* and *Pandemic Period* will be continued.

b. Health care providers working in a variety of settings will be asked to assist with monitoring for anitiviral resistance and vaccine effectiveness.

Postpandemic Period

a. Surveillance activities will return to the *Interpandemic Period*.

b. The IZDP of NJDHSS, in cooperation with appropriate PHC partners, will assess the surveillance experience and recommend modifications to the Influenza Pandemic Plan.

The IZDP will complete collection and analysis of surveillance data from the pandemic and prepare a report that provides an epidemiologic description of the event

C. Vaccine Delivery

Vaccination is the primary intervention to decrease the health impacts of an influenza pandemic. The vaccination goals are to:

- Maintain the ability to provide quality health care, implement pandemic response activities and maintain vital community services

- Protect persons at higher risk for influenza mortality

- Decrease transmission of infection to those at highest risk for influenza mortality (provide indirect protection)

- Maintain other important community services

- Protect the susceptible population at large

This is accomplished by quickly administering safe, effective vaccine to appropriate groups of people.

1. Background

    a. In a typical season, approximately 85% of vaccine is purchased and administered primarily through the private sector. LHDs hold clinics each fall and early winter. Most individuals who receive the vaccine are age 65 or older and covered by Medicare. The Behavioral Risk Factor Surveillance System (BRFSS) reports for NJ for 2002 show a self-reported rate of 69.1% for influenza immunization among adults 65 and over, slightly higher than the national average of 68.5%. For 2003, NJ's rate of 67.2% is slightly below the national average of 69.9%. This rate varies depending on the availability of vaccine. The US goal for 2010 is 90% compliance.

    b. Expanded childhood and HCW vaccination has been emphasized in recent years.

    c. The involvement of the NJDHSS is limited to administration of influenza vaccine for at-risk children under its Vaccines For Children Program (a federally funded program), and for ensuring that the state negotiates a contract with the vaccine manufacturers so that all LHDs and public agencies can purchase vaccine at a reduced cost.

    d. It is not likely that vaccine will serve as the central preventive strategy during the first wave of the next pandemic. Unlike annual production of influenza vaccine, wherein strains are selected in the spring, leading to vaccine distribution in the late summer, a pandemic strain could be detected at any time. Current manufacturing procedures require six to eight months before large amounts of vaccine are available for distribution. In the interim, use of "universal respiratory precautions" (URP) or "respiratory etiquette" will be promoted. (See the Appendix for sample URP posters.) It is also possible that prior vaccination may offer some protection to a new strain.

    e. Once vaccine begins to become available, the approach for vaccination will differ from that used during a typical influenza vaccination program.

During a pandemic, it is likely that, initially, there will be little or no vaccine and prioritization of persons to receive the vaccine will be necessary. During the course of the pandemic, priority groups may change based on epidemiology. Recommendations for priority groups will be issued by the CDC. It is anticipated that a preliminary list will be available by August 2005. Eventually, sufficient vaccine is expected to be available for mass vaccination of the entire population.

f. It is not known whether the federal government will completely purchase and distribute the vaccine to states, partially purchase and distribute the vaccine to states, or minimally purchase the vaccine (as it has during non-pandemic years).

g. NJDHSS has developed a "Mass Prophylaxis Manual" and has trained local public health staff in its use. It specifies the staff and other resources that are needed to operate a "point of dispensing" (POD**).** This manual is for prophylaxis for a specific, targeted population and could be used when limited supplies of vaccine are available. A different system will need to be developed for immunization of the entire population once vaccine become readily available.

h. The NJDHSS has plans in place for the secure, climate controlled storage and distribution of the Strategic National Stockpile (SNS), including "push packages" and the Vendor Managed Inventory. This same system will be used for influenza vaccine. In addition, there are similar plans for the State Strategic Stockpile (SSS). Numerous sites, geographically distributed throughout New Jersey, have been identified for potential PODs.

i. Liability protection for vaccine manufacturers and persons who administer influenza vaccine will likely be made through congressional legislation.

j. It is possible that each person will require a second dose of vaccine 30 days after the initial dose because the population will be immunologically naïve. This will require a tracking system to ensure receipt of two doses of vaccine. The NJ Immunization Information System (NJIIS) can be used for this purpose.

k. Monitoring of vaccine adverse events on such a large scale will require enhancements to the existing federal infrastructure.

l. During the *Interpandemic Period*, efforts must continue to increase pneumococcal vaccination that can reduce the incidence of invasive pneumococcal disease secondary to influenza. BRFSS reports for NJ for 2002 show a self-reported rate of 63.1% for pneumococcal immunization among adults 65 and over, about the same as the national rate of 63%. For

2003, NJ's rate of 62.4% is slightly below the national average of 64.2%. The US goal for 2010 is 90% compliance.

m. Nursing homes must offer immunization against influenza by November 30 of each year to those residents who are age 65 and over, unless such vaccination is medically contraindicated or the resident has refused the vaccine. Compliance is high.

n. Nursing homes must offer immunization against pneumococcal disease to those residents who are age 65 or over, unless such vaccination is medically contraindicated or the resident was refused the vaccine. Information is not available regarding compliance.

o. Between October 1, or earlier, if the vaccine is available, and February 1 of every year, acute care hospital patients age 65 or older, provided their medical condition permits, shall be provided the opportunity to receive vaccine against influenza. Compliance rates to date are low.

p. As soon as a patient's medical condition permits, every acute care general hospital patient aged 65 years or older shall be provided the opportunity to receive vaccination against pneumococcal disease. Compliance rates are unknown, but estimated to be low.

q. Adult and pediatric day health services facilities are required to provide all participants, provided their medical condition permits, the opportunity to receive vaccination against influenza by November 30. Compliance rates are unavailable.

r. Adults in day health services facilities who are 65 or older are to be offered vaccination against pneumonia, unless it is medically contraindicated. Compliance rates are unavailable.

2. Activities by pandemic phase

Interpandemic Period

a. Through communication efforts, NJDHSS will enhance influenza vaccination coverage levels in the general public as well as in "targeted groups," as recommended by the US Department of Health and Human Services' Advisory Committee on Immunization Practices (ACIP). Special efforts will be made to vaccinate hard-to-reach segments of the targeted groups. Increasing routine, annual vaccination coverage levels in these groups now will further reduce the annual toll of influenza and will facilitate access to these populations when the pandemic occurs.

b. Through communication efforts, NJDHSS will enhance pneumococcal vaccination coverage levels in traditional "high risk" groups to reduce the incidence and severity of secondary bacterial pneumonia.

c. NJDHSS will investigate modifying the Hospital Employee Immunization Regulations and regulations for other HCWs to require that all such employees and staff be vaccinated annually against influenza.

d. The PEC will recommend to the Commissioner of NJDHSS a process by which review, modification and implementation of the national recommendations for vaccine priority groups will occur. This recommendation will consider specific groups of persons whose absence, due to influenza illness, could pose a serious threat to public safety or would significantly interfere with the ongoing response to a pandemic.

e. The CDS staff, in cooperation with the PEC, will develop a plan for providing influenza vaccine to priority groups in the event of a vaccine shortage.

   The following groups will be considered by the PEC:

   - Persons necessary to provide the legal authority to initiate activities including: the governor, commissioners and others identified to take charge of state functions in emergencies

   - PHC workers in: acute care facilities, nursing homes, senior citizen facilities, special needs facilities, private physicians'offices, home care, public health, emergency medical services (EMS), pharmacies, and laboratories. Consideration will also be given to family members of essential PHC workers.

   - Essential service providers: law enforcement, fire fighters, mortuary workers, utility workers (water, gas, electric, communications), vital community service workers, staff working in institutional settings, providers of public transportation, food store personnel, truckers of essential goods, teachers, school nurses, security personnel, governmental decision makers.

   - Persons at high risk of developing severe outcomes based on age, underlying conditions, or congregate living arrangement.

   - Household contacts of persons with high-risk medical conditions.

   - Healthy children and adults younger than 65 years of age.

The priority groups that the PEC designates in advance will be subject to modification based upon the epidemiology of the pandemic.

f. The CDS staff, in cooperation with the PEC, will develop a plan for providing influenza vaccine to the general public in an organized, systemic way, with considerations for security. This vaccine administration plan may involve private sector groups that provide influenza vaccine annually, such as health care organizations, grocery chains, pharmacies, and large employers, as well as mass prophylaxis clinics.

g. The CDS staff has provided training to public health workers and other partners on planning and implementing mass prophylaxis clinics and provided them with a "Mass Prophylaxis Manual."

h. Additional personnel:

- NJDHSS will work with the Department of Law & Public Safety and the Board of Medical Examiners to explore the legal authorities that are needed to allow for implementation of major elements of the mass prophylaxis clinics, including use of non-licensed volunteers to administer vaccine.

- Presently, physicians, registered nurses, nurse practitioners, licensed practical nurses and pharmacists are authorized to administer vaccinations in accordance with their respective state professional boards. Additionally, physicians' assistants may do so under protocols established with a supervisory physician. Medical assistants and personal care assistants may administer vaccinations under the supervision of a registered nurse. Certain military personnel may have training as well to administer vaccinations. Under emergency conditions, other health professionals (dentists, veterinarians) might be added to this list.

i. The Commissioner of NJDHSS possesses the regulatory authority to mandate vaccines and doses above those currently required for children or pupils enrolled in licensed child care centers and schools (N.J.A.C. 8:57-4), and colleges (N.J.A.C. 8:57-6). The Immunization Insurance Law for children also contains an emergency clause, which permits the Commissioner of NJDHSS to mandate that large group health insurers cover an ACIP recommended vaccine for children.

The Hospital Employee Immunization Regulations do not contain an emergency clause to mandate that hospital employees and staff be vaccinated with other vaccines beyond the required measles and rubella. However, the declaration of a state of public emergency and subsequent

actions and operations as outlined by the State OEM and its protocols may offer broad based powers to the Governor and Commissioner of NJDHSS to appropriate money, expedite contracts, hire temporary personnel, issue additional mandates, or to otherwise act to protect the public's health.

j. NJDHSS will coordinate vaccine distribution with LINCS jurisdictions, and, if advised by the CDC, with neighboring states.

k. NJDHSS will work with the CDC to monitor and investigate adverse events through the CDC's Vaccine Adverse Event Reporting System (VAERS).

l. Vaccine Management

- Tracking of the vaccine supply in New Jersey will be accomplished through web based surveys administered through NJDHSS.

- NJIIS is a web enabled interactive registry that can be used by both the private and public sectors, provided they are registered users. It is Internet accessible and password protected. During an influenza pandemic, it may be used to track administration of both doses of flu vaccine. Since very few private providers are registered users, they will continue to use their office based tickler systems to record vaccine administration and re-call patients for the second dose, if one is needed.

- Monitoring of vaccine adverse events on such a large scale will require enhancements to the existing federal infrastructure.

m. NJDHSS will periodically review, exercise, and modify vaccine distribution plans as part of influenza pandemic exercises and plan updates.

Pandemic Alert Period

a. The PEC and the IAC will convene to review major elements of the vaccine distribution plan, such as defining priority groups, storage capacity, personnel resources, security arrangements, sites for mass vaccination clinics, etc.

b. The plan will be modified as needed to account for updates, if any, on recommended priority groups, projected vaccine supply, and human resources available.

c. Nursing homes, hospitals, and adult day health services will be advised by NJDHSS to ensure that all individuals aged 65 years or older have been

offered and encouraged to receive the pneumococcal vaccine, in compliance with state regulations. While not required by law, all private practitioners will be encouraged to do the same, unless medically contraindicated.

Heightened Pandemic Alert Period

a. The list of priority groups to receive vaccine will be presented to the Commissioner of NJDHSS for review and approval. It is then forward to the Governor for approval.

b. LHDs will be reminded to:

- Review the "Mass Prophylaxis Manual" that they received from NJDHSS during the *Interpandemic Period*;
- Ensure written commitments to use previously identified locations for vaccination clinics;
- Determine appropriate existing or contracted staffing;
- Obtain and train volunteers to assist in the clinics;
- Prepare standing orders. (See sample forms in the Appendix or check http://www.immunize.org/catg.d/p3074.pdf for influenza vaccine and http://www.immunize.org/catg.d/p3075.pdf for pneumococcal vaccine.)
- Have all procedures in place to comply with the NJDHSS mass prophylaxis protocols and the requirements of the CDC and the FDA; and
- Anticipate any security concerns that may arise in particular jurisdictions.
- Plan for vaccination of hard-to-reach populations, including home bound, non-English speaking, and disabled residents.

All staffing/volunteer plans must take into account the need for additional staff due to illness.

c. NJDHSS will coordinate activities with bordering jurisdictions of New York City, New York State, Pennsylvania, and Delaware.

d. If the CDC decides that the private sector is to be involved in vaccinating the public, NJDHSS will provide training and protocols for vaccine delivery to appropriate hospitals, managed care organizations and health

care provider organizations. This training may be done in collaboration with the CDC via distance learning and/or regional meetings.

Pandemic Period

a. As soon as vaccine is available, vaccine priority groups will be vaccinated, in a tiered fashion, eventually reaching the general public, supply permitting. Two doses may be required, 30 days apart.

b. NJDHSS will be responsible for the delivery of vaccine to PODs and other locations (with security provided through the State EOC, if necessary) for administration to priority groups.

c. It is likely that hospitals and other congregate living facilities (CLFs) will be responsible for vaccinating priority groups who are employed in their facilities. Therefore, they will need to provide NJDHSS with a count of the number of such priority individuals so that an appropriate amount of vaccine and related supplies can be made available to them. As vaccine supplies become more available, institutions may develop programs to extend vaccination to all staff and, potentially, to vaccinate family members of employees to decrease their need to care for ill persons at home.

d. LHDs will be responsible for administration of vaccine to priority groups who do not work in institutions as mentioned above.

e. Activation of the state EOC is likely to take place. Storage and distribution of vaccine may be a joint responsibility between the OEM and NJDHSS, particularly if there are major shortages of vaccine and significant disruptions of the health care and emergency response systems due to widespread illness. Most likely, the SNS plan will not be activated until large quantities of vaccine are available.

f. Depending on federal policy regarding purchase and distribution, the private sector may or may not be purchasing and administering vaccine independent of the public sector.

g. NJDHSS will determine if reallocation of vaccine among LHDs or other entities is necessary and will coordinate such a reallocation, in cooperation with the LINCS agencies.

h. Throughout the pandemic, NJDHSS will oversee and monitor the distribution and administration of vaccine, the tracking of doses, the appropriate storage and handling, and adverse event reports through CDC's web-based VAERS.

i. NJDHSS will coordinate activities with LINCS agencies to ensure equitable availability of resources.

End of Wave(s)

a. Agencies will conduct reviews and assessments of their pandemic response and make adjustments to their plans, as appropriate. The IAC will lead this effort in cooperation with the PEC.

Successive Wave(s)

a. At this point, if the virus strain has not shifted from that of the previous wave, there may be sufficient vaccine produced for all who want it. Appropriate aspects of the vaccine delivery system for the *Pandemic Period* will be implemented, with modifications based upon experience from the previous wave. These modifications may include more involvement of the private sector.

b. If the virus has shifted, the *Successive Wave(s)* will be more like the *Heightened Pandemic Alert Period* and the *Pandemic Period* in the previous wave.

c. It is unknown if the people who received the vaccine in the first wave will need to be re-vaccinated, and if so, whether they will require one or two doses.

d. Vaccine will most likely be recommended for unvaccinated persons who contracted the flu and survived the first wave because self-reporting of flu is unreliable as compared to laboratory diagnosis.

Postpandemic Period

a. Influenza vaccination activities will return to the *Interpandemic Period*.

b. Enhanced systems for monitoring the distribution and administration of vaccine, the tracking of doses, the appropriate storage and handling, and adverse event reports will be discontinued.

c. The VPDP, in cooperation with appropriate PHC partners, will assess the vaccine delivery experience and recommend modifications to the Influenza Pandemic Plan**.**

d. The VPDP, in collaboration with the state EOC, OEM and SNS staff, will prepare a report assessing the vaccine delivery during the pandemic.

D. Antivirals

During an influenza pandemic, the primary goal of antiviral prophylaxis and therapy would be to decrease adverse health impact (morbidity and mortality) and reduce social economic disruption, supporting overall pandemic response goals.

If the supply of effective antivirals is limited, the CDC recommends that they be used primarily for treatment of individuals at high risk of serious complications, rather than for prophylaxis.

1. Background

Because vaccine will likely not be available when the novel virus first affects communities, antivirals may play an important role for the control and prevention of influenza, especially (but not only) during the period before vaccine is available. Antivirals will also be needed due to the limitations of vaccination: imperfect effectiveness – particularly among the elderly and those with underlying immunosuppressive disease; the possible need for two vaccine doses to achieve optimal protection; and the inability to vaccinate certain persons with contraindications, such as anaphylactic hypersensitivity to eggs or other vaccine components.

The possible effectiveness of antiviral agents in either the prophylaxis against or the therapeutic treatment of a novel influenza virus is not known. It probably will not be known until some time after the identification of the new virus. The use of antiviral agents is further hindered by their limited production, complications with resistance, lack of central inventory monitoring, and the absence of a sufficient federal or state stockpile. However, plans must be made in the event that a novel virus proves to be sensitive to existing antivirals.

There are two general categories of antiviral agents presently available: prophylactic and therapeutic. Within these groups there are several Food and Drug Administration (FDA) licensed agents, each with specific age and medical restrictions on their use, which need to be carefully considered. In addition, the federal government may make recommendations regarding their appropriate use based upon the most recent scientific findings and epidemiology of the novel virus.

Currently, the manufacture, purchase, distribution, and prescribing of these drugs is entirely in the private sector. Pharmaceutical companies manufacture antiviral drugs based on projected influenza activity for the coming influenza season. They deliver their products to wholesale distributors, who deliver the drugs to pharmacies and hospitals.

Similar to planning for vaccine distribution, it is important to consider planning for different scenarios, including:

a. federal purchase of the existing supply and distribution to states;

b. state purchase of antivirals using emergency funds;

c. status quo (that is, bulk of drugs available in private sector); and

d. federal stockpile with distribution to states.

If there is no state or federal purchase, the state's role will largely be one of public and provider education around appropriate use of antivirals.

a. Agents for prophylaxis

   Both classes of influenza antiviral drugs (adamantanes and neuraminidase inhibitors) have been shown to be equally effective in preventing influenza A infections when used as prophylaxis. Long-term prophylaxis is estimated to be 6-8 weeks, if used while influenza is circulating in a community. Short-term prophylaxis, lasting for 10-14 days, may be used to prevent infection in families or institutions following exposure to influenza.

   Important cautions are associated with adamantane use (possible CNS effects, emergence of resistant viral strains) and they are generally expensive and in limited supply. Identification of influenza within a community (based on either isolation of the pandemic strain or an increase in ILI) should be the trigger for initiating prophylaxis. In order to be effective, these agents must be taken continually until exposure has ceased.

   The adamantane class of antiviral drugs are likely to cause side effects and induce antiviral resistance. In fact, H5N1 viruses isolated from poultry and humans in Asia in 2004 are known to be resistant to the adamantanes. (H5N1 influenza viruses have caused outbreaks in humans since the late 1990s.) Therefore, their use should be limited to pre-exposure in selected populations: those who are supporting the goal of maintaining quality public safety, providing critical response capacity, and other essential public health services.

   If a person is vaccinated while receiving prophylaxis, the antiviral can be stopped 14 days after vaccination or, if two doses are needed for protection, 14 days after the second dose.

If a person receiving prophylaxis is to receive a live-virus vaccination, they must cease the prophylaxis for 48 hours prior to vaccine administration. In addition, antivirals should not be used until two weeks after receipt of live-virus vaccine.

b. Agents for therapy

The neuraminidase inhibitors have proven effective in reducing severe complications of known influenza disease when given within 48 hours of clinical onset of disease. They may also decrease influenza transmission and shorten the time to recovery. Neuraminidase inhibitors have fewer side effects than the adamantane class of antivirals and are the preferred choice for treatment. Their use is complicated by their limited supply and the need for rapid administration. A positive rapid test may be required prior to dispensing of these agents. In 2003, the CDC included them in the SNS.

Infected persons taking antiviral medication may still be infectious, and the virus they shed may be resistant to antiviral agents.

2. Activities by pandemic phase

Interpandemic Period

a. NJDHSS activities will be focused on monitoring federal and professional communications regarding the general use of antiviral agents. This is to prepare for subsequent communication with providers and the public.

b. Taking into account federal recommendations, the PEC will draft a list of priority groups, similar to those for vaccine, to be offered prophylaxis agents should they be available when vaccine is not.

c. Plans are in place for the NJDHSS Smallpox Vaccination Plan's secure storage system and distribution network to be activated should antivirals become available to the states from the federal government. This plan calls for the LINCS agencies to obtain the agents from the state and provide them to LHDs who would distribute them within their jurisdictions as instructed by NJDHSS. This distribution may include direct administration or further distribution to providers.

d. Expansion of the NJIIS data management system will be explored for inclusion of tracking of antiviral agents, inventory control and monitoring of adverse events, in a fashion similar to that for vaccine.

Pandemic Alert Period

a. Antiviral use guidelines will be provided to the medical and public health communities based upon the novel virus response to date.

b. The PEC will convene to review major elements of the antiviral agent distribution plan, such as defining priority groups, storage, personnel resources, security arrangements, and plans for distribution should antivirals be recommended and are available in limited or large quantities.

c. The plan will be modified as needed to account for updates, if any, on recommended priority groups, projected antiviral supply, and human resources available.

d. The medical and public health communities will be notified of the status of the plan and antiviral availability.

e. NJDHSS will ensure that staff is offered training for the NJIIS data management system and that the infrastructure is in place for its use.

Heightened Pandemic Alert Period

a. If antiviral use is determined to be a feasible part of the pandemic strategy, the PEC will convene to refine the priority groups for receipt of the drug, including prevention and treatment options, dependent upon availability of medications.

b. If antivirals become available to the states from the federal government, NJDHSS web based surveys will be activated for tracking purposes.

c. NJDHSS in cooperation with LINCS agencies, will coordinate efforts to ensure equitable availability of resources.

Pandemic Period

a. NJDHSS will stay current with evaluations of the efficacy of antiviral agents and the available supply.

b. Supplies permitting, the distribution plan will be fully activated. Human resource planning will take into account the need for added staff due to illness.

c. NJDHSS, through web based surveys, will track inventories.

d. NJDHSS will continue to coordinate with LINCS agencies to ensure equitable availability of resources.

e. If requested by the national RODS project, pharmacists will report numbers of prescriptions being filled for antiviral agents and the availability of medications. NJDHSS will have access to the NJ data.

End of Wave(s)

a. Agencies will conduct reviews and assessments of their pandemic response and make adjustments to their plans, as appropriate. The IAC will lead this effort in cooperation with the PEC.

b. If limited vaccine is available, antiviral activities from the *Interpandemic, Pandemic Alert,* and *Heightened Pandemic Alert Periods* will be implemented.

c. At this point, if the virus strain has not shifted from the virus of the first wave, there may be sufficient vaccine produced for all who need it. If antivirals prove to be effective for prevention or treatment, they may be in sufficient supply to be used when vaccine is contraindicated. Mass clinics for dispensing antivirals are not anticipated.

Successive Wave(s)

a. If antivirals are effective and available, and vaccine is not available, the *Successive Wave(s)* will be more like the initial *Pandemic Period* with modifications based upon experience from the previous wave.

Postpandemic Period

a. Antiviral activities will return to the *Interpandemic Period*.

b. The enhanced system for tracking antiviral agents, inventory control and adverse events will be discontinued.

c. The VPDP will prepare a report assessing the antiviral usage during the pandemic.

E. Communications

1. Background

Key planning activities relate to preparation of materials, identification of channels of communication, and managing the psychological and behavioral reactions of the public, medical personnel, and PHC workers.

The goals are to:

- Provide accurate, consistent, and comprehensive information about influenza and pandemic influenza
- Instill and maintain public confidence in the nation's public health system and its ability to respond to and manage a pandemic influenza outbreak
- Contribute to the maintenance of order, minimization of public panic and fear, and facilitation of public protection through the provision of accurate, rapid, and complete information
- Address rumors, inaccuracies, and misperceptions as quickly as possible, and prevent stigmatization of affected groups

Several of these communications activities will be conducted in cooperation with the NJ Department of Human Services (NJDHS) Disaster Mental Health Services as described in Section F – Mental Health.

Communication materials that will be disseminated to the media and the general public will be developed collaboratively by the DHSS Office of Communications and the DHSS Communicable Disease Service.

All materials will be developed in accordance with evidence-based risk communications principles designed to deliver accurate and timely public health information**.**

a. Materials

CDC may make a number of materials available before and during an influenza pandemic, including:

- basic communication materials (such as question and answer sheets and fact sheets) on influenza, influenza vaccine, antiviral agents, and other relevant topics in various languages;

- general preventive measures such as "dos and don'ts" for the general public;

- information and guidelines for health care providers;

- training modules (web-based, printed, and video);

- "shelf kit" presentations, slide sets, videos, documentaries;

- symposia on surveillance, treatment, and prophylaxis; and

- message maps for dealing with the media.

Because of anticipated shortages of both vaccine and antivirals, planning around messages informing the population about availability and addressing the rationale for priority groups and measures to be taken until such are available will be critical. Other important topics include:

- basic information about influenza (including symptoms and transmission);
- Universal Respiratory Precautions (See the Appendix for sample URP posters.)
- information about the course of the pandemic (contagiousness, geographic spread, case counts);
- information about which symptoms should prompt seeking medical assistance and which symptoms should be managed at home;
- information about school and business closures and suspended public meetings;
- the rationale for vaccine and antiviral priority groups;
- appropriate use of antivirals;
- mass vaccination;
- information about travel restrictions and quarantine laws; and
- Community support for medical, emotional, social, and homebound issues related to the pandemic.

b. Communication Channels

For several years, NJDHSS has been using a statewide electronic communication system for disseminating public health messages to a broad audience of stakeholders involved in public health. NJDHSS supports LHDs in their educational efforts.

- Key public health partners and health care providers have secure and encrypted web portal access to the Health Alert Network (HAN) applications from any computer. This is referred to as the NJ HAN web site. All HAN messages are posted here along with important public health messages from NJDHSS. In addition, the LINCS/HAN e-mail alert messaging component provides a web-based, secure email system anywhere/anytime access with an internet connection.

- Each of the 22 LINCS agencies (approximately one per county), acts as a communication "hub." Each agency has a Community Health Alert and Information Network (CHAIN) consisting of LHDs, health care organizations, law enforcement organizations, local government officials and other PHC partners. Through the LINCS agencies, NJDHSS has the ability to reach local boards of health, health care facilities and providers, clinical labs, pharmaceutical companies, emergency responders, health care providers' educational institutions, veterinarians, local officials, community-based organizations and others. This network ensures email and/or fax communication between NJDHSS and over 30,000 individuals. All LINCS agencies are expected to keep their CHAINs updated and to develop a system of redundancy for communication within their jurisdictions. In addition, all LINCS agencies' contact databases are backed up within NJDHSS to ensure a redundant means of contact with these groups.

- Each LHD has developed mechanisms to communicate with different communities, including hard-to-reach populations.

- NJDHSS Division of Senior Benefits, Utilization and Management has the ability to send a mailing to the Division's 200,000 beneficiaries, a population almost entirely in the high-risk group for influenza. The Division also could have scripted information for their hotline callers (average of 25,000 calls per month).
- NJDHSS has the capacity to fax emergency messages to hospitals, nursing homes, LHDs, and others. NJDHSS maintains a database of NJ hospital public information officers (PIOs). All 113 LHDs can be contacted by fax, phone, cellular phone, email and have access to the Internet.

- All 84 general acute care hospitals have 800 MHz radios. NJDHSS also has a partnership with the NJHA for the timely dissemination of emergency preparedness information to all general acute care hospitals, regardless of their membership in NJHA.

- NJDHSS has a "reverse 911" system ("Communicator") which is an automated, personal emergency communication system utilizing pre-recorded messages capable of reaching multiple devices through sequential call-down (phone, pager, cell phone, fax, etc.) to NJDHSS key staff/programs and all LHDs. LINCS CHAIN contact data is being uploaded to the Communicator to provide the capability of reaching all LINCS/HAN participants for high-level emergencies.

- Communicator services are augmented by CallMaster, a system which provides the additional feature of translating text into voice prior to sending the message.

- NJDHSS has GeoNotify, which uses Geographical Information System (GIS) mapping technologies for targeted community emergency communications. Currently, 2.5 million residences and 500,000 businesses in 21 counties can be reached by using GeoNotify in combination with the Communicator. An additional 3 million residences are being added to the system.

- A number of state and local health department staff have BlackBerry telephones which also provide email and internet access.

- All communication systems between the NJDHSS and partners are tested monthly. LINCS agencies are to perform monthly tests of their communications with their respective CHAINs.

- For communication with the general public, NJDHSS relies on its web site and the media for dissemination of routine public information. The Office of Communications, within the Office of the Commissioner, has lead responsibility for developing and approving material for the press and the public. This process involves appropriate subject matter experts within the Department.

- NJDHSS has trained media spokespersons at the state level and has provided training to LINCS staff (nurses, epidemiologists, health educators/risk communicators), health officers, county PIOs, hospital PIOs, and others at the local level.

- NJDHSS has a dedicated hotline number that can be activated within a few hours to receive and answer questions from the public, HCWs, etc.

2. Activities by pandemic phase

   It is important to establish when and what to communicate to the general public and other audiences, and from whom that communication should come.

   Interpandemic Period

   When adequate supplies of vaccine are anticipated, NJDHSS will:

   a. Continue to conduct influenza immunization campaigns to increase coverage levels in the general population as well as "targeted groups," as recommended by ACIP. This campaign may consist of:

      - printed materials such as posters, prescription bag stuffers, flyers, fact sheets;

      - movie theater advertisements – slides shown prior to the trailers;

- providing LINCS agencies and LHDs with press releases/articles for them to customize for weekly local newspapers, college newspapers, and various organization newsletters;

- direct mail to physicians;

- reaching physicians through infection control professionals at quarterly hospital staff meetings.

- enhancements to and promotion of the NJDHSS influenza web page (*www.nj.gov/flu*) which lists clinics sponsored by LHDs. Modifications include use of the CDC influenza immunization logo and a link to the American Lung Association's flu clinic locator which contains clinics sponsored by pharmacies and other non-governmental entities;

- electronic messages announcing the availability of influenza materials at *www.nj.gov/flu* sent through LINCS, the HealthEASE listserv (for organizations serving the elderly), the NJ Pharmacists Association listserv, and the NJ Regional Library Cooperative listserv;

- magnetic advertisements on state motor pool vehicles; and

- "I got my flu shot" stickers.

b. Promote the vaccination of PHC workers against influenza and investigate the possibility of requiring PHC workers to be vaccinated.

c. Promote pneumococcal vaccination coverage levels in traditional "high risk" groups to reduce the incidence and severity of secondary bacterial pneumonia. This effort may consist of:

- providing templates for "standing orders" for vaccination administration in nursing homes, senior citizen facilities and special needs facilities;

- enhancements to NJDHSS influenza web page; information posted on the web sites of appropriate professional associations;

- blast faxes from appropriate professional associations to their members;

- direct mail to targeted facilities;

- direct mail to physicians in private practice;

- cooperative ventures with the New Jersey Peer Review Organization;
- targeted distribution of printed materials such as posters, prescription bag stuffers, flyers, fact sheets;
- articles in weekly local newspapers and various organization newsletters.

d. Promote the practice of Universal Respiratory Precautions (URP) for the public:

- cover coughs and sneezes with tissues; and
- wash hands frequently.

e. Teach optimal infection control practices to PHC workers periodically and monitor implementation to promote and reinforce good behaviors:

- cover coughs and sneezes with tissues or surgical masks;
- wash hands frequently; and
- wear gloves and gowns and replace them often.

f. Provide, during annual influenza season, information on:

- where to get vaccinated;
- who the target population is for vaccination;
- influenza symptoms and how to treat it; and
- steps to take to prevent the spread of influenza at work, home, school and play.

g. Prepare infection control educational materials to use during all phases of an influenza pandemic. These materials will be customized for their specific target audiences: the general public, schools, businesses, PHC workers, elected officials, volunteer organizations, and other PHC partners. These will be shared with LHDs.

h. Prepare, with the Office of Communications, media packages with templates for communication materials for all phases of an influenza pandemic. These will be shared with LHDs. To reduce public anxiety and related actions which will overburden the health care system, it is important that these materials are developed in cooperation with mental

health experts from the NJDHS and by incorporating proven risk communication principles.

i. Enable the state telephone hotline to have the option of being used for automated answers to Frequently Asked Questions (FAQs). These FAQs will be shared with LINCS agencies and LHDs which may have their own telephone hotlines.

j. Investigate the establishment of a separate hotline for PHC workers.

Pandemic Alert Period

NJDHSS will:

a. Use the HAN to notify PHC workers of the novel virus and share relevant information as it becomes available.

b. Provide education for PHC workers in a manner that allows for education of new employees over time. This may be accomplished through self-administered training modules or via the Distance Learning Network.

c. Continue *Interpandemic Period* activities as appropriate.

d. For public education, utilize the NJDHSS flu web site and the previously developed educational materials related to the identification of a novel influenza strain. Information about the proper and likely limited use of antiviral agents will be provided.

e. Educate public health officials, elected officials, and the media about what information will and will not be available during a pandemic.

f. Remind LHDs, hospitals, and elected officials that consistent, coordinated messages are crucial during a public health emergency such as a pandemic.

g. Review and adapt CDC and NJDHSS materials as needed.

h. Make preliminary arrangements for hotline activation, staff scheduling, and staff training.

i. Revise the automated telephone FAQs as needed, anticipating questions from the public on the hotline. Test the system.

j. Establish a second hotline for PHC workers. Test the system

k. Prepare press releases for the media

Heightened Pandemic Alert Period

NJDHSS will:

a. Use the HAN to notify PHC workers of the human-to-human transmission of the novel strain and share relevant information as it becomes available. Institute conference calls if necessary.

b. For public education, utilize the NJDHSS flu web site and the previously developed educational materials related to the human-to-human transmission of a novel influenza strain.

c. Review and adapt CDC and NJDHSS materials as needed.

d. Assuming vaccine against the novel virus is not available, continue *Pandemic Period* activities as appropriate. If an effective influenza vaccine is available, encourage priority groups to be vaccinated.

e. Activate the Office of Communications' Risk Communication Plan. The Office of Communications developed the Risk Communication Plan to ensure a timely and effective flow of information to a wide range of audiences: general public, media, health care workers, etc.

f. Through the Office of Communications, monitor media coverage and address misinformation.

g. Through the CDS, activate the hotline for the public and health care workers, schedule staff, and revise the automated telephone FAQs and staff scripts as needed.

h. Through the Office of Communications, hold press conferences regularly. Provide frequent, reassuring and consistent messages:

   - Describe surveillance efforts and findings, provide information on vaccine production and delivery protocols, include information about the proper and likely limited use of antiviral agents, and explain that the government has implemented its pandemic influenza plan;

   - Explain the need for priority groups to receive vaccine; and

   - In addition to URP, inform the public of other risk reducing behaviors: avoid crowds, reduce non-essential travel, increase ventilation, clean and sanitize environmental surfaces, and, to protect others, stay home if sick.

- Use of masks by the public is not recommended as a general precaution. There is no evidence that a well person wearing a mask will keep from getting sick. However, masks should be used to help prevent the spread of the virus from infected people to susceptible people. Therefore, surgical masks should be worn by both caregivers and sick people during periods of contact in the home.

i. Remind LHDs, hospitals, and elected officials that consistent, coordinated messages are crucial during a public health emergency such as a pandemic.

j. Consider utilizing credible local spokespeople to convey essential messages. Example may include: community opinion leaders, representatives from the faith community, local well-regarded experts, etc.

Pandemic Period

a. Use the HAN to notify PHC workers of the onset of the pandemic and share relevant information as it becomes available. Because the staff will be overburdened, any instructions for staff to implement will be made as easy as possible.

b. Review and adapt CDC and NJDHSS materials as needed.
c. Through the Office of Communications, continue to monitor media coverage and address misinformation.

d. Through the Office of Communications, continue the hotline and revise the automated telephone FAQs and staff scripts as needed.

e. Through the Office of Communications, continue holding press conferences regularly. Provide frequent, reassuring and consistent messages in addition to those in the *Pandemic Alert Period* and the *Heightened Pandemic Alert Period*.

- Promote behaviors to preventing influenza without vaccine and antiviral agents;

- Provide information on influenza symptoms and recommendations for care, including self-care and when and where to seek professional help;

- Educate the public about how quickly information may change;

- Provide strategies for coping; and

- Explain that the PHC system anticipated a pandemic and is responding according to its influenza pandemic plan.

- For public education, utilize the NJDHSS communication channels and previously developed educational materials related to an influenza pandemic.

f. Remind LHDs, hospitals, and elected officials that consistent, coordinated messages are crucial during a public health emergency such as a pandemic.

End of Wave(s)

a. As soon as the CDC declares the first wave over, NJDHSS will communicate that information to PHC workers and the public.

b. Agencies will conduct reviews and assessments of their pandemic communications response and make adjustments to their plans, as appropriate. The IAC will lead this effort in cooperation with the PEC.

c. The mental health component, which fosters resilience and readiness for a *Successive Wave(s),* will be activated.

d. Depending on the availability of vaccine, certain activities from the *Interpandemic, Pandemic Alert, and Heightened Pandemic Alert Periods* will be implemented.

Successive Wave(s)

a. During *Successive Wave(s)*, the Communications activities for the *Pandemic Period* will be implemented, with modifications based upon experience from the previous wave.

Postpandemic Period

a. As soon as the CDC declares the end of the pandemic, NJDHSS will communicate that information to PHC workers and the public.

b. Communications activities will return to the *Interpandemic Period*.

c. The Office of Communications, in cooperation with appropriate PHC partners, will assess the communications experience and recommend modifications to the Influenza Pandemic Plan.

d. The Office of Communications will prepare a report assessing the communications response during the pandemic.

F. Mental Health

As clearly articulated in the Central Intelligence Agency, Directorate of Intelligence September 2003 report, SARS: Lessons from the first epidemic of the 21st century, (Unclassified) "…understanding and managing the public's psychological and behavioral reactions to an unexpected outbreak of infectious disease are integral to successful response and containment."

In developing a comprehensive protocol to respond to pandemic influenza, it is useful to consider the lessons learned in the various national and international communities challenged with the SARS outbreak of 2002-2003, especially those related to the significant economic and psychosocial disruption to affected communities. In addition, New Jersey's experience with the postal system anthrax attacks of 2001 and subsequent smallpox vaccination efforts suggest that there is a necessary role for mental health support services across all pandemic phases.

These experiences have served to highlight the critical need for integration of mental health and public health services. In the instance of pandemic influenza, the psychological impact of a more widely spread epidemic would be more significant than the modest SARS-related losses experienced mainly by China, Hong Kong, and Canada potentially resulting in many emotional and socio-economic consequences that are not currently represented in models used to gauge the impact of epidemics.

Addressing surge capacity issues at health care facilities, and points of dispensing for medical and pharmaceutical supplies is an important aspect of anticipating and responding to the likely psychosocial consequences of a pandemic influenza in New Jersey. It is also important to anticipate a demand for expanded mental health services and the likelihood that affected persons and communities may not be able to access traditional mental health care offered onsite at local mental health clinics, hospitals or private practice offices. Furthermore, due to in-home isolation, members of the affected public may be best served remotely via tele-counseling and online resources.

1. Background

New Jersey is a forerunner in national efforts directed at disaster mental health preparedness, response and recovery. New Jersey's models and methods of addressing the behavioral health consequences of disasters and other emergencies are used by the federal government as examples to guide other states and territories in their preparedness and response efforts. Training materials developed through the NJDHS' Disaster Mental Health Services projects are made available through the federal Disaster Technical Assistance Center via their online services (http://www.mentalhealth.org/dtac) and special projects such as the training video, "Watermarks: Assisting Youth

After Floods," have won national awards and recognition.

Through the NJDHS Division of Mental Health Services (DMHS), New Jersey has actively engaged in disaster mental health program development since 1989. The result of these continuous efforts has been the formation of a discrete Disaster Mental Health Services branch within the division dedicated to the behavioral health aspects of all phases of disaster management (i.e., mitigation, planning, response, recovery).

a. Disaster Mental Health Services Staffing

- The Disaster Coordinator of Disaster Mental Health Services communicates with the New Jersey State Police, the State OEM, and County OEMs and County Mental Health Administrators during both declared and undeclared disasters and emergencies. The Disaster Coordinator is responsible for the deployment of crisis counselors and other resources necessary to supplement the local area's capacity to address the mental health impact of a disaster. Deployment of mental health resources typically occurs through the respective County Mental Health Administrators.

- The Disaster Coordinator is supported by a team of three administrative and clinical specialists who serve as Field Operations Supervisors during the response and recovery phases of disasters.

- Field Operations Supervisors are deployed to EOCs and other points of administrative control as authorized representatives of the DMHS to coordinate and supervise emergency behavioral health service activities. These services may include psychological first aid and crisis counseling activities, on demand training programs, and other mental health support functions. The Field Operations Supervisors provide backup and relief for each other and for the Disaster Coordinator as needed. The Field Operations Supervisors also oversee the activities of a team of four Emergency Response Specialists, each with different areas of expertise.

- Emergency Response Specialists act under the direction of Field Operations Supervisors to coordinate the clinical and logistical aspects of direct disaster behavioral health services. They work directly with, and serve as liaisons to local mental health and substance abuse provider agencies, their staff members and private practitioners engaged in the provision of disaster behavioral health services. Emergency Response Specialists provide backup and relief for each other as well as for Field Operations Supervisors as needed.

b. Counseling Network

- The DMHS has developed and trained a cadre of over 3,000 Crisis Counselors (CCs) statewide who serve in a Mental Health Emergency Responder reservist capacity. CCs are mental health professionals and paraprofessionals trained in a model consistent with Federal Emergency Management Agency (FEMA) and Substance Abuse Mental Health Administration guidelines. CCs are trained and credentialed psychologists, social workers, counselors, psychiatric nurses and other related helping professionals (i.e., Crime Victim Advocates, school counselors, school nurses, etc.).

- CCs are accessed via a database managed by Disaster Mental Health Services, housed at its Central Office, and shared with the 21 County Mental Health Administrators. These CCs are notified, activated and deployed either by their local County Mental Health Administrator or provider agency administrators, who in turn coordinate staffing issues, such as transportation, shifts, and other support issues.

- CCs responding to a disaster scene, Family Assistance Center or other site as part of a Disaster Mental Health Services' authorized disaster response operate under the direction of Field Operations Supervisors and/or Emergency Response Specialists, depending on the nature and scope of the event.

- When there is sufficient warning of an impending disaster or emergency, CCs are notified and placed on stand-by alert for possible activation and deployment. Should mobilization be necessary, notification is made via telephone, cell phone, fax or e-mail broadcast, pagers and/or public service announcements on local TV and radio outlets depending on the nature of the emergency and status of communications system during the emergency or disaster.

- Disaster Mental Health Services also maintains a disaster mental health-specific website (http://www.disastermentalhealthnj.com) which posts secure communications for disaster mental health responders, as well as information for the public related to the mental health aspects a disaster or emergency situation.

c. Authorization

All aspects of the behavioral health response to a disaster or emergency are guided by the New Jersey Mental Health Emergency/Disaster Response Plan (May 1997), which is an attachment to the NJDHS Annex. The New Jersey Mental Health Emergency/Disaster Plan is authorized by federal legislation (PL 93-288 and 100-707) intended to alleviate the

mental health problems caused by or exacerbated by disasters and major emergencies.

2. Activities by Pandemic Phase

Interpandemic Period

a. The DMHS has developed a collaborative network of mental health providers and a mechanism for deployment and real-time information sharing with the public health system, command structure and critical response agencies. Representatives from Disaster Mental Health Services' collaborative network serve as members of county-level Bioterrorism Task Forces and are available to consult with public health and LINCS agencies throughout the state.

b. Disaster Mental Health Services are integrated into county-level disaster plans in conjunction with County OEMs. Each county has developed a Disaster Mental Health plan which serves as an annex to the overall county disaster response plan. County OEM Coordinators have established positive linkages with County Mental Health Administrators or their designees who may serve as the initial contact person to access disaster mental health services within the county.

c. The DMHS has identified and trained frontline mental health responders who would be called upon in the event of bioterrorism or other public health emergencies. Approximately 500 of the overall 3,000 trained CCs currently registered with Disaster Mental Health Services have additional bioterror/health emergency training which addresses basic medical information about the various hazards, the psychosocial impact of bio-terrorism and specific strategies for psychological first aid and crisis counseling in public health emergencies and bioterror events. In readying for an anticipated influenza pandemic, additional training would be offered through the DMHS specific to the medical and psychological features of influenza (i.e., Frequently Asked Questions, Fact Sheets on influenza, influenza vaccine, and antiviral agents).

d. The DMHS has on-demand training programs currently available for frontline medical personnel, including physicians, nurses, EMS and public health personnel about typical and atypical behavioral responses, strategies for managing fear and anxiety, and the availability of relevant mental health resources to address the anticipated psychosocial impact of the event.

e. The DMHS has a history of providing disaster-specific training and working in collaboration with local mental health providers on services for populations with special considerations, such as those serving

children/schools, older adults, specific cultural and ethnic communities, people who are disenfranchised, first responders, hospital and healthcare workers, business travelers, and others who are identified. The DMHS maintains a posture of readiness to deliver on-demand trainings to the above mentioned populations during all phases of a disaster or emergency.

f. The DMHS has developed brochures and other printed communications materials, as well as online resources available through state websites, to provide reliable information addressing the psycho-social consequences of public health emergencies, as well as coping strategies and local mental health resources. Current versions of these materials can be found on the DMHS disaster services website. Examples of specialized psycho-educational materials can be found in the areas labeled "Smallpox Support" and "Terror Alert Anxiety" at: http://www.disastermentalhealthnj.com. Other psycho-educational materials for bio-terrorism and public health emergencies have been developed but would not be posted unless a public health emergency was anticipated.

g. The DMHS fosters collaboration between mental health programs, public health and public information officials in the development of public information campaigns integrating medical and mental health care information that may help reduce panic, a surge in healthcare seeking behaviors, and the potential for mass sociogenic illness (fear and distress response of individuals) in the wake of a disease outbreak. An example of this collaboration is the active participation of Disaster Mental Health Services in the design, simulation and evaluation of New Jersey's SNS exercise, informational sessions provided to LINCS Coordinators' meetings and other similar events.

h. The DMHS has developed strategies and guidelines for interacting with the media and for communicating with stakeholders and the general public.

i. The DMHS has participated in sanctioned public health events (for example, medical screening and vaccination clinics) to test and practice protocols for the integration of mental health services into a comprehensive public health response.

j. The DMHS maintains ongoing dialogue and networking with State and County public health and emergency management officials in the furtherance of a mental health role in public health emergencies, and seeks opportunities to provide training and consultation for PHC workers in the psychosocial aspects of bioterrorism and other public health emergencies.

Pandemic Alert Period

a. The Disaster Coordinator of Disaster Mental Health Services and other senior management staff of the NJDHS-DMHS will initiate communication with the NJDHSS and NJ State Police OEM regarding the severity, scope and anticipated resources required to meet the threat at hand.

b. At the direction of the Disaster Coordinator, notification will be made by phone, e-mail, and broadcast fax, to contracted mental health agency executives, County Mental Health Administrators, liaisons with professional organizations (i.e., New Jersey Psychological Association, New Jersey Chapter of the National Association of Social Workers, etc.), registered CCs participating in the Disaster Mental Health Response Network, and other mental health assets to be ready for possible activation in response to a public health emergency.

c. Additional notification will be made to all sanctioned Mental Health Screening Centers and other community psychiatric crisis units.

d. The DMHS will provide *ad hoc* training and orientation for those mental health professionals who may be deployed to support emergency-related public health response efforts (i.e.- mass prophylaxis sites, local hospitals, alternate care facilities, etc.). Depending on the nature of the emergency and life-safety issues, this training may be live, or offered in a distance learning (web-based) format.

e. The DMHS Training and Technical Assistance Group (T-TAG) will provide consultation to local mental health providers in adapting their response for special populations (i.e.-hospital and healthcare workers, children, older adults and ethnic communities, first responders, home-bound, etc.).

f. T-TAG will provide consultation and training for frontline PHC workers, such as state and local public health department staff, physicians, nurses, medical technicians and others in anticipating and responding to epidemic-related mental health behaviors such as stress reactions, misattribution of normal arousal symptoms, and panic.

g. CCs and community outreach workers directed by the DMHS will disseminate psycho-educational materials to various populations addressing the mental health impact of the pandemic-event, as well as strategies for coping with fear and anxiety and the availability of mental health services.

h. The DMHS will conduct mental health-specific needs assessments and rapid identification of vulnerable populations and gaps in mental health services that may exacerbate the psycho-social response to the event.

i. The DMHS will draw upon existing relationships with Voluntary Organizations Active in Disasters (VOAD) and faith-based organizations in coordinating and unifying mental health messages and strategies.

j. Through existing relationships with Business Executives for National Security (BENS) and the New Jersey Workforce Project, the DMHS will communicate and coordinate with private-sector partners to assess needs and resource sharing around mental health issues.

k. The Disaster Coordinator will work in coordination with PIOs, NJDHSS Office of Communications, LINCS Health Educator/Risk Communicators (HERCs), and other officials in crafting public service mental health messages in support of the overall emergency public health response.

l. The DMHS will increase recruitment of qualified outreach workers to provide community-based crisis counseling and psycho-education in rural and otherwise difficult to reach communities.

m. T-TAG and other specialists identified by the DMHS will serve as liaisons to the public information officers and risk communicators, and serve as subject matter experts and technical advisors in the development of media messages.

n. The DMHS will distribute to PHC professionals guidelines for assessment, intervention, triage and referral of acute behavioral crises;

Heightened Pandemic Alert Period

a. The DMHS will expand existing mental health help-line services to 24-hour coverage and linkage with supplemental hotlines developed by NJDHSS to provide tele-counseling to address pandemic influenza-related anxiety and to assist with the provision of updated resources and referrals for obtaining information. This service is especially necessary for individuals who are home-bound due to LHD directives for isolation/quarantine.

b. The DMHS will coordinate with public health authorities for emergency vaccination of mental health responders.

c. T-TAG will continue to serve as liaisons to PIOs.

d. The DMHS will continuously update and modify online mental health/pandemic-related websites.

e. The DMHS will deploy T-TAG and CCs to deliver multi-lingual, multi-cultural mental health support services directed at all critical outbreak-related functional areas (i.e., SNS Receiving, Storage and Staging sites, PODs, law enforcement headquarters, emergency medical service bases of operation, etc.).

f. Provision of Psychological First Aid training for PHC personnel to enhance the ability of those professionals to de-escalate agitated individuals and better manage the public's behavioral response to the emergency. Psychological First Aid (PFA) is defined by the Institute of Medicine of the National Academies as, *"...a set of skills identified to limit distress and negative health behaviors that can increase fear, arousal and subsequent health care utilization."* This set of skills includes supportive communications techniques, assisted coping techniques and verbal de-escalation techniques applied to reduce emotional distress and physiological arousal during and immediately following emergency situations.

g. T-TAG and other DMHS approved trainers will provide stress management services and training for those PHC personnel working in high-demand settings.

h. The DMHS will continue collaboration with private-sector partners to coordinate information sharing and resources available to and through Employee Assistance Programs (EAPs);

i. CCs and community outreach workers will provide crisis counseling (life safety issues not withstanding), at adult day care centers, airports, child care centers, colleges and universities, first responder organizations, and other locations identifies by need to be determined by the DMHS needs assessments.

j. CCs and community outreach workers will be deployed (life safety issues not withstanding), to high-emotion locations (i.e., morgues, funeral homes, hospitals, pediatric units, pharmacies, etc.) to de-escalate agitated individuals.

Pandemic Period

a. The DMHS will direct the continuation of all services and functions described in the *Heightened Pandemic Alert Period*.

b. The DMHS will actively recruit, screen and train additional CCs to address staff attrition due to burnout, health issues and other factors that may contribute to decreases in the cadre of counselors.

c. T-TAG and Field Operations Supervisors will consistently monitor direct traumatic stress and secondary traumatic stress levels in the mental health counselor workforce, and actively employ strategies for the prevention and intervention of staff stress issues.

d. Field Operations Supervisors will continually assess the need for supplementary CC staffing at high-consequence sites (i.e., morgues, cemeteries, medical examiner's offices, hospitals, vaccination clinics, houses of worship, funeral homes, mass care sites, etc.)

e. Disaster Mental Health Services staff will coordinate with other crisis counseling programs (i.e., American Red Cross, county prosecutor's victims advocates, etc.) to ensure the interoperability of counseling services at all points within the community.

f. CCs and community outreach workers will deliver (life safety issues not withstanding), support services to schools and other institutions to assist staff, students/residents, etc. with grief and bereavement issues and the cumulative stresses related to a protracted health emergency.

g. T-TAG and Field Operations Supervisors will proactively offer ongoing stress management activities for crisis counselors and other mental health workers engaged in any outbreak-related efforts.

h. T-TAG and Field Operations Supervisors will offer ongoing stress management services to personnel within the incident command and control structure o f the emergency management system.

i. The DMHS T-TAG will proactively deliver specialized mental health support services to medical professionals, first responders, and public health workers to address stress management concerns to reduce the potential for adverse psychological reactions within their workforces.

End of Wave(s)

a. The DMHS senior managers will work in conjunction with representatives of the NJDHSS, LINCS agencies, the OEM and other critical partners to assess the efficacy of the disaster mental services provided in all previous stages of the pandemic response.

b. The DMHS senior management, along with T-TAG and Field Operations Supervisors will revise and adjust plans to address the anticipated

psychosocial impact of the next wave of influenza and communicate these revisions to critical partners prior to initiation.

c. T-TAG and other DMHS approved specialists will provide phase-specific crisis counseling to affected populations to foster resilience and readiness for a successive wave.

d. T-TAG will modify the content of training programs and psycho-educational materials to reflect lessons learned in earlier phases of the pandemic response and to better prepare crisis counselors for the specific demands of a successive wave.

e. The DMHS will engage in additional recruitment and development of crisis counseling staff to address attrition in the number of available workforce.

Successive Wave(s)

a. Field Operations Supervisors will coordinate ongoing multi-modal crisis counseling services applied strategically to points of high-demand.

b. The DMHS senior managers, the Disaster Coordinator and T-TAG staff will continue to liaison with the PIOs, the NJDHSS Office of Communications and LINCS HERCs.

c. T-TAG will make continuous updates and modification to online mental health/pandemic-related websites and psycho-educational materials.

d. T-TAG will continue to offer phase-specific training, development and deployment of new CCs for all assignment points.

e. CCs will provide ongoing stress management services and trauma-reduction programs for CCs phasing out or returning to active service.

f. CCs and community outreach workers will continue ongoing community crisis counseling to affected populations.

g. T-TAG staff and CCs will provide ongoing crisis counseling and stress management services for medical, public health, and emergency response personnel assigned to key functional areas.

h. CCs will provide ongoing support for clergy, morticians and funeral workers.

i. T-TAG will promote the development of grass-roots, community self-help groups to address the long-term emotional consequences of the pandemic.

j. T-TAG and CCs will promote and offer technical assistance and other peer-support programs to first responders to address the potential long-term emotional impact of the event.

k. T-TAG and CCs will help deliver debriefing and other post-event psychological services for first responders, public health and other professionals involved in the event.

Postpandemic Period

a. T-TAG will work with community mental health provider agencies, academic institutions and other specialists to develop treatment models to address the lingering or long-term emotional consequences of the pandemic event.

b. T-TAG will maintain a telephonic help-line providing tele-counseling, updated resources and facilitated referrals for behavioral health services, as well as online resources.

c. T-TAG will maintain online psycho-educational and resource/referral websites developed during earlier phases.

d. T-TAG and CCs will help deliver debriefing and other post-event psychological services for first responders, public health and other professionals involved in the event.

e. The DMHS senior managers, the Disaster Coordinator, T-TAG staff and other designees will participate in "after-action" meetings, operational debriefings, and the development of lessons-learned documents, to assess successes and areas that need improvement in the mental health response to the event.

f. CCs and community mental health provider agency-based workers will provide ongoing mental health support for those members of the affected public and PHC community who experience delayed onset or persistent stress reactions stemming from the pandemic event.

g. The DMHS senior management and T-TAG staff will continue collaboration with public health and emergency management agencies in planning, response, recovery and mitigation efforts.

h. The DMHS will collaborate with private-sector partners to assess and assist in the delivery of post-event services and foster linkages to provider agencies and private practitioners engaged in the treatment of long-term mental health issues.

i. The DMHS Managers, the Disaster Coordinator and T-TAG staff will collaborate with affected communities, community-based resources and VOADs to initiate pre-anniversary event planning (scheduling, staffing, promotions, media management, etc.) and help publicize anniversary/memorial activities via websites and printed materials.

G. Emergency Response

1. Background

a. The goal of the public health response is to slow the spread of infection as much as possible while a vaccine is being developed. The response will be affected by several factors:

- efficiency of transmission;
- age distribution;
- severity and spectrum of illness; and
- mortality caused by the pandemic.

b. If the pandemic affects NJ poultry and swine populations, the NJ Department of Agriculture:

- has the capacity to monitor and detect disease incidence in these animals;
- has the authority to cull infected domesticated animals; and
- will coordinate and work with NJDHSS Public Health Veterinarians as to their activities and the potential impact on the human population.

c. Surge capacity:

- Given the shortage of PHC personnel, it is unlikely that staff will be moving from unaffected areas to those in need. In addition, hospital staff is limited to work only in the institutions where they are credentialed.
- The use of NJ National Guard personnel for surge capacity staffing needs will be the decision of the Governor.
- A widespread pandemic may limit the availability of supplies from federal agencies.

- Morgue facilities are the responsibility of the State and County Medical Examiners, as described in the State Mass Fatality Plan.

- NJDHSS' *"Influenza Surge Capacity Guidance for Healthcare Facilities"* can be found in on-line at *http://nj.gov/health/flu/documents/flu_scg_110904.pdf*.

d. Evaluation:

- Throughout the response, efforts should be made to log all information which would be useful to the post-outbreak evaluation of the emergency response.

2. Activities by pandemic phase

Interpandemic Period

a. The NJDHSS and LHDs will review and update activities described in the *Interpandemic Period* of this plan. This includes items in: Command & Control, Surveillance, Vaccine Delivery, Antivirals, and Communications.

b. The *Interpandemic Period* is critical for planning for the impact of a pandemic on resources: human, material and facility. In collaboration with LINCS Planners, each LHD is responsible for assessing and continually updating the numbers, names, and/or locations of the following within their jurisdictions:

- Health care personnel:
physicians: primary care, intensive care, emergency department, infectious disease; physician assistants; registered nurses; advanced practice nurses; school nurses; public health nurses; infection control professionals; pharmacists; crisis counselors; first responders: paramedics, emergency medical technicians; nurses aides; multi-skilled technicians.

  LHDs should be working with hospitals and local volunteer organizations to ensure current rosters of available medical and non-medical workers/volunteers by skills/competencies.

  NJDHSS will be working to develop a statewide Medical Reserve Corps (NJMRC) and a relationship with the NJ VOADs. Part of the Medical Reserve Corps is an on-line Emergency Health Care Provider Registry.

- Health/medical equipment and supplies:
personal protective equipment: gloves, surgical masks, eye protection,

gowns, N-95 respirators (fit-tested); availability and accessibility of: ventilators, influenza vaccine, antiviral agents, pneumococcal vaccine; vaccine administration supplies, including sharps disposal boxes; intravenous supplies: fluid, catheters, IV tubing and securing devices; antibiotics to treat secondary bacterial infections.

It is recommended that hospitals, CLFs and LHDs consider stockpiling some of the above items, as appropriate.

NJDHSS has begun to stockpile some of these items.

- Non-Traditional Care Centers:
  emergency treatment, in-patient medical care, out-patient hydration stations, and out-patient follow-up centers.

  Staffing, supplies, equipment and technological support for non-traditional care facilities requires extensive planning. Included in the planning is the identification of the trigger that leads to the activation of a non-traditional site. Monitoring events, maintaining an inventory of supplies, and coordinating services in these facilities is crucial to the success of the medical response. The primary guidance for establishing and maintaining emergency facilities is the American Red Cross' Disaster Services Regulations.

  i. Emergency treatment:

     While it is preferred that sick people see their primary care providers, many will chose to come to hospital emergency departments instead. As part of their disaster planning, hospitals are required to have an area to receive disaster victims that would temporarily expand capacity for emergency treatment. These receiving areas are commonly the lobby or cafeteria type space that would be usable only for a brief period of time. Once stabilized, patients would be transferred to facilities where beds are available, referred to an out-patient rehydration station, or sent home with care instructions.

  ii. In-patient medical care:

     Increasing the number of beds in current facilities is the preferred option. In extreme emergencies, where hospitals cannot expand to meet needs and transfer to outlying facilities is impractical, space in large public buildings will be made available. The New Jersey Army National Guard Armories with Medical Units and large public buildings such as college dormitories, schools, office buildings, community centers, warehouses, fire halls, first aid

squad buildings, service organization club buildings, houses of worship, etc. may become “non-traditional” in-patient care or emergency treatment facilities. LHDs, working with LINCS Planners, should consider making arrangements for sites to be used for in-patient medical care, should hospitals be filled to capacity. This planning will be done in conjunction with area health care facilities. Staffing may provide the greatest challenge. Ideally, the non-traditional care centers would be used to provide care to those who are less severely ill. NJDHSS will provide CDC guidance materials for establishing these sites.

iii. Out-patient hydration station:

It is anticipated that in the event of an influenza pandemic many vulnerable individuals will be susceptible to severe dehydration as a complication of their infection. This may come about either by prostration and weakness due to disease, by on-going fluid losses without adequate/proper replenishment, or both. If a large number of such patients present to an already over-burdened health care system it could be overwhelming. Accordingly, it would be appropriate to consider establishing, with local communities, clinic-like stations solely for the purpose of short-term rehydration of compromised patients so as to prevent further deterioration and the need for hospitalization during such an emergency.

Such rehydration stations could be similar to present "short-stay" beds many emergency rooms have established. These facilities may be located adjacent to hospitals and will be used primarily for establishing intravenous lines, delivering brief IV hydration (4-12 hours) to compromised patients to avoid hospitalization, and providing take-home instructions for rehydration. Such stations would require a nurse assessor, phelbotomist and access to chemistry labs. Based upon public information about the symptoms of dehydration, some individuals may come here prior to seeking other medical care. NJDHSS will develop protocols and patient instructions for these facilities. (See the Appendix for information on dehydration and rehydration.)

iv. Out-patient follow-up center:

These facilities may be needed for patients who do not have primary care physicians or whose providers are overwhelmed with patients. Their locations should be near hospitals for ease of transfer, should that be necessary.

c. NJDHSS, in cooperation with NJHA, has developed the Health Emergency Reporting Management Information System (HERMIS) which has the capacity to conduct day-to-day monitoring of hospital bed usage and capacity, both for critical care and non-critical care, as well as needed equipment and supplies.

d. Three questions need to be addressed by the NJ Department of Labor as well as NJDHSS:

- What will happen when professionals/union members are needed to perform tasks that are outside their standard job descriptions?

- What will happen when professionals/union members are needed to work hours that are longer than their normal work hours?

- Ill workers should wait 24 hours after being without fever before returning to work. Workers caring for infirm family members should be without fever for 72 hours following their last exposure to the patient. Will workers be compensated or required to take sick/personal leave?

e. Volunteers who are enrolled in the NJMRC will be considered to be volunteers for the State OEM. The NJMRC will consist of both health care professionals and non-clinical volunteers. All volunteers will receive training locally and their volunteer activities will be local. They will be used primarily to assist in the dispensing of vaccine.

f. If children are orphaned due to influenza:
- Guardians specified in parents' wills will assume custody
- If no guardian is specified, relatives can go to court for custody
- If no relatives seek custody, the NJ Division of Youth & Family Services will arrange for temporary foster care and assist in planning for the child.

g. State and LINCS Planners should identify and address specific challenges posed by an influenza pandemic to existing emergency response plans, making certain that these emergency plans address communicable disease issues.

h. The NJDHSS Emergency Response Coordinator is responsible for informing the State Epidemiologist of any changes in state emergency response protocols, which would impact an emergency response to an influenza pandemic.

i. Gaps identified during the interpandemic period should be resolved as soon as possible. For NJDHSS, this may mean working with the IAC.

For LHDs, this may mean working with their OEMs, hospitals, volunteer organizations and other public health partners

Pandemic Alert Period

a. The NJDHSS and LHDs will review and update activities described in the *Pandemic Alert Period* of this plan. This includes items in: Command & Control, Surveillance, Vaccine Delivery, Antivirals, and Communications.

b. The NJDHSS CDS staff and LINCS Planners will meet with state and county emergency response coordinators to educate and update them on impending issues should there be a pandemic. Through existing Governmental Public Health Partnerships, LINCS Planners will keep LHDs updated on the outcomes of these meetings. Conference calls will be held as necessary.

c. The NJDHSS and LHDs will remind PHC workers to use URP and will provide related informational materials. Implementation of proper infection control practices will be monitored and reinforced.

d. Plans should be made regionally and locally to obtain equipment and supplies from distributors during off hours in emergency situations.

Heightened Pandemic Alert Period

a. The NJDHSS, LINCS agencies and LHDs will review and update activities described in the *Pandemic Alert Period* of this plan. This includes items in: Command & Control, Surveillance, Vaccine Delivery, Antivirals, and Communications.

b. Medical workers, including home health workers, will be reminded to use URP and provided with guidance as to when to use surgical masks or N95s when dealing with patients presenting with ILI. They will be provided with related educational materials and advised to increase their stocks of influenza related supplies.

c. Resource requirements that need to be considered in depth in this phase include:

- supplies and equipment requirements;
- facility requirements (including 3 types of non-traditional care centers);
- additional personnel;

- special training of personnel (e.g., ventilator); and

- volunteer organizations – They can assist in care of the sick, provision of food, and other essential support for homebound persons, including those who may be confined to their homes as directed by public health officials. Local plans should consider provision of transportation expenses (bus, subway, train, taxi or gas for personal vehicles) for volunteers.

d. Through the HAN, NJDHSS will provide updates on case definitions and clinical guidance to PHC workers.

e. All medical facilities (hospital emergency departments, out-patient clinics and private medical practices) will be advised to post exterior signs about URP and provide surgical masks to all patients presenting with ILI. Sample signage will be provided through the HAN. CDC guidelines will be provided as well.

Pandemic Period

a. Activation

- State and local officials will monitor the need to activate the emergency response system, but it can be expected that the State EOC will be activated**.**

- New Jersey Emergency Support Function (NJESF) #8: "Health and Emergency Medical Annex" of the State Emergency Operations Plan is the primary NJESF to be activated. This NJESF provides for the coordination and direction of State, county, municipal, private, non-profit and volunteer resources to support public health and medical needs during a disaster, including an influenza pandemic.

- NJESF #8 coordinates with NJESF #9 (Law Enforcement) and NJESF#4 (Firefighting) for disaster scene activities, NJESF #6 (Mass Care) and NJESF #15 (Volunteers and Donations).

- Emergency Support Function #6 (Mass Care Annex) describes the American Red Cross Disaster Welfare Information system for assistance in family reunification. This system includes information concerning sick or injured persons on the National Disaster Medical System casualty list that is made available from hospitals and other registered medical care facilities in coordination with Emergency Support Function #8 (Health & Emergency Medical Annex).

b. Triage and Patient care

- Triage of patients will be critical for the delivery of the appropriate level of care and to minimize the impact on health care institutions. The objectives of triage include identifying persons who may have pandemic disease and separating them from others to reduce the risk of transmitting infection, and identifying the type of care they require. NJDHSS' "*Influenza Surge Capacity Guidance for General Hospitals"* in can be found on-line at http://nj.gov/health/flu/documents/flu_scg_110904.pdf

- Key issues include assuring that influenza does not spread in triage areas and appropriately managing admissions or follow-up for those not admitted.

- Patients who claim to have the flu will be screened to determine if they have ILI: fever $\geq$ 100º F. AND cough and/or sore throat (in the absence of a known cause).

- Nursing homes and special needs facilities will be advised to increase their level of care, thus providing urgent care for patients in their facilities while avoiding transfers to potentially overwhelmed acute care facilities.

- The demand for home care may increase as more stringent criteria are applied for hospital admission, as persons may be discharged home earlier, and as visits to outpatient facilities are limited. Home health care workers may be called upon to provide follow-up visits to flu patients at home. Services may include establishment and monitoring of intravenous hydration lines.

- VOAD will be activated to assist as needed. All volunteers must have received appropriate infection control education.

- The non-traditional care centers will be activated as needed.

c. Updating/Monitoring/Coordination

- Through the HAN and the NJDHSS web page, NJDHSS will provide updates on CDC case definitions and clinical guidance.

- Traditional emergency procedures will be followed for supply needs. Once the local supply is exhausted and vendors are no longer able to provide supplies, requests will go from hospitals, EMS Coordinators, LHDs, and LINCS agencies to Local or County OEMs, then on to the State OEM and the HCC. The HCC will make distribution decisions

and the SNS Coordinator will implement the distribution in cooperation with the State and County OEMs.

- NJDHSS will coordinate clinical and public health services with bordering local jurisdictions to avoid migration of people to locations of perceived enhanced services. In addition, if services and supplies are purchased by a local jurisdiction, they may impose a residency requirement on individuals presenting for care/prophylaxis.

d. Containment

The results of the on-going surveillance, as described in Section B, will provide guidance for development of containment strategies in addition to those listed here.

- Infection control measures for all medical workers will be reinforced to protect patients, visitors and workers. *See the CDC "Pandemic Influenza Response and Preparedness Plan – Annex 8: Strategies to Limit Transmission" located at* *http://www.dhhs.gov/nvpo/pandemicplan/*.

- Home health care personnel should apply infection control as scrupulously as hospital personnel, given their potential to spread infection between households.

- Hospitals and CLFs will be asked to monitor staff for unusual clusters of disease.

- Hospitals and CLFs will be asked to monitor the occurrence of nosocomial influenza infection to assess the effectiveness of infection control strategies and identify if procedures or need to be improved to protect patients. NJDHSS' *"Influenza Surge Capacity Guidance for General Hospitals"* can be found on-line at http://nj.gov/health/flu/documents/flu_scg_110904.pdf

- NJDHSS will recommend that individuals who know they were exposed to someone with flu follow URP guidelines and reduce personal contact.

- All medical facilities (hospital emergency departments, out-patient clinics and private medical practices) will be advised to post exterior signs about URP and provide masks to all patients. Sample signage will be provided through the HAN. CDC guidelines will be provided as well.

- Intrastate travel advisories will be issued as needed to restrict movement of the population into and out of areas of concern.

- For containment measures such as cancellation of public gatherings and school/day care closures, NJDHSS will provide advice on a case-by-case basis.

End of Wave(s)

a. Agencies will conduct reviews and assessments of their pandemic response and make adjustments to their plans as appropriate. The IAC will lead this effort in cooperation with the PEC. They will:

   - report lessons learned from the first wave; and

   - develop and implement strategies to mitigate shortfalls in the next wave.

b. Depending on the availability of vaccine, certain activities from the *Interpandemic, Pandemic Alert, and Heightened Pandemic Alert Periods* may be implemented.

Successive Wave(s)

a. During a *Successive Wave(s)*, steps should be taken to gather information which may help to evaluate the impact of the pandemic, including the effect on psycho-social well being of staff and the public.

b. During a *Successive Wave(s)*, the Emergency Response activities for the *Pandemic Period* will be implemented, with modifications based upon experience from the previous wave.

Postpandemic Period

a. State and local OEMs will coordinate recovery efforts, damage assessment and needs assessment.

b. Routine public health, medical and emergency medical services will resume.

c. Agencies will conduct reviews and assessments of their pandemic response and make adjustments to their plans as appropriate. The IAC will lead this effort in cooperation with the PEC.

d. The NJDHSS Office of the State Epidemiologist will coordinate a Department-wide initiative to assess the impact of the pandemic on health care resources, and will prepare a report, including reports from the IZDP and VPDP, for the Commissioner and Governor with recommendations for future emerging communicable diseases.